# State Route 99 Transportation Concept Report

California Department
of Transportation
District 2

**July 2009**

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of Transportation
District 2

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*This Transportation Concept Report (TCR) meets the requirements for a corridor plan as contained in the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, approved by the voters as Proposition 1B on November 7, 2006. The benefits of this plan include:*

- *Identifying, prioritizing, and addressing the greatest needs within the corridor*
- *Protecting the infrastructure investments as they occur*
- *Sequencing of projects logically*

## Additional Information

For additional information on the SR 99 Transportation Concept Report contact:

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## REPORT SIGNATURE SHEET

**State Route 99 Transportation Concept Report**

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**SCOTT WHITE** — **Date**
**Chief, Office of System Planning**
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**APPROVAL RECOMMENDED BY:**

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**TIM HUCKABAY, P.E.** — **Date**
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**Caltrans, District 2**

Ed Lamkin — 7/30/09

**ED LAMKIN, P.E.** — **Date**
**Deputy District Director, Office of Maintenance and Operations**
**Caltrans, District 2**

for Shirley Choate — 7/31/09

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**Caltrans, District 2**

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JOHN BULINSKI, P.E.
District Director
Caltrans, District 2

Date 7/31/09

**ACCEPTANCE BY:**

GARY ANTONE, P.E., P.L.S.
Executive Director
Tehama County Transportation Commission

Date 7-28-09

# TEHAMA COUNTY TRANSPORTATION COMMISSION
# RESOLUTION No. 17-2009

## ACCEPTANCE OF STATE ROUTE 99 TRANSPORTATION CONCEPT REPORT

**WHEREAS**, the Tehama County Transportation Commission is responsible for regional transportation planning for Tehama County and the incorporated cities of Corning, Red Bluff, and Tehama, and said responsibilities include the functional relationship between the local road system and state highway system; **and**

**WHEREAS,** the California Department of Transportation (Caltrans), District 2 is responsible for the planning, construction, and operation of the state highway system, which includes the functional relationship between the state highway system and local road system; **and**

**WHEREAS**, Caltrans, District 2 in cooperation with the Tehama County Transportation Commission has prepared a Transportation Concept Report (TCR) for State Route (SR) 99 which sets forth a conceptual plan for the development and operation of the highway for the next 20 years; **and**

**WHEREAS,** Caltrans, District 2 in cooperation with Tehama County Transportation Commission conducted extensive outreach with an Internet website, agency presentations, Tribal consultations, media outreach, public workshops, phone conversations, and mailing lists/e-mail lists; **and**

**WHEREAS,** the analysis provided in the report indicates that substantial and expensive improvements would be potentially needed to the existing SR 99 in order to accommodate traffic growth during the next 20 years; **and**

**WHEREAS,** long-term plan must be consistent with statewide plans which consists of 4-lanes; **and**

**WHEREAS,** the SR 99 TCR does not determine the ultimate alignment of State Route 99 between the Butte/Tehama County line and Interstate 5; **and**

**WHEREAS,** the report identifies the three main alignment concepts under consideration at the time the report was updated: Existing route, South Avenue, or New alignment to Interstate 5 (I-5); **and**

**WHEREAS,** the SR 99 TCR discusses these three concepts and the relative advantages and disadvantage of each; however the report does not attempt to identify one concept as the preferred alignment; **and**

**WHEREAS,** the State Route 99 Transportation Concept Report recommends that a more detailed feasibility study be pursued in the future in order to provide the information necessary to reach a consensus on the preferred alternative.

**NOW, THEREFORE, BE IT FURTHER RESOLVED** by the Tehama County Transportation Commission accepts the State Route 99 Transportation Concept Report prepared by Caltrans District 2 and authorizes the Executive Director to sign the "Acceptance" block on the signature sheet for the State Route 99 Transportation Concept Report.

**NOW, THEREFORE, BE IT FURTHER RESOLVED** that the State Route 99 Transportation Concept Report is described as:

A conceptual document that guides the decision making process

A visionary document and first step in planning for and/or improving route, and

A route specific document that defines a routes needs and beings the discussion

on investing in the longevity of the corridor.

The foregoing Resolution was offered by Commissioner Willard, seconded by Commissioner Warner, at a regular meeting in Red Bluff, California, on July 28, 2009, and adopted by the following vote:

**AYES:** Commissioners': Gary Strack; Ron Warner; Charles Willard;Jim Byrne; and Robert Christison

**NOES:** None

**ABSENT OR NOT VOTING:** Commissioner George Russell

**ATTEST: Gary Antone, P.E., P.L.S.**

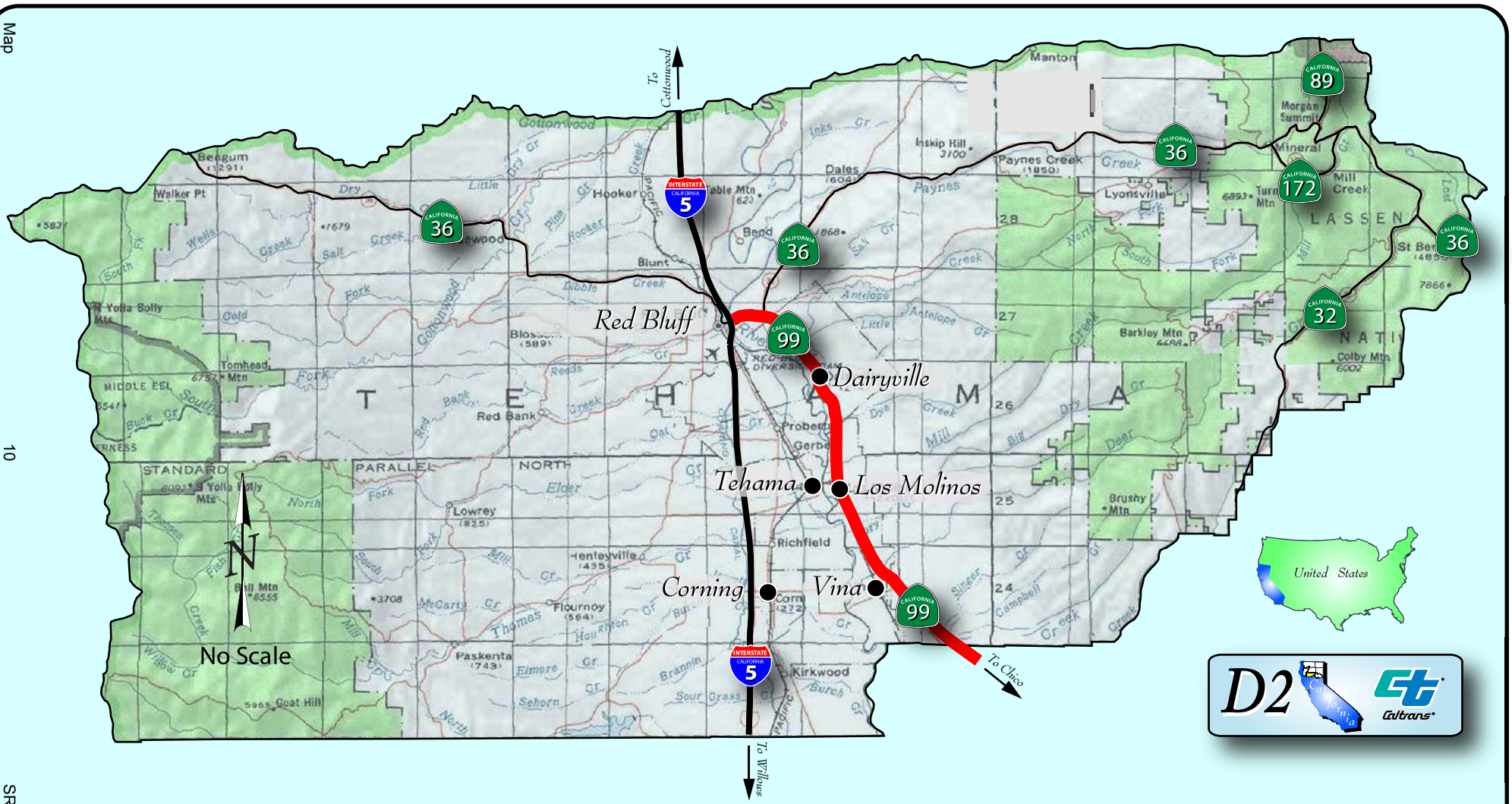
**ADOPTED: July 28, 2009**

**BY:** _____
**Linda Madea**
**Recording Secretary**

_____
**Vice Chair**


State Route 99 in California
CALIFORNIA 99
Caltrans
Del Norte
Siskiyou
Modoc
Humboldt
Trinity
Shasta
Lassen
Tehama
Plumas
Glenn
Butte
Sierra
Mendocino
Lake
Colusa
Yuba
Nevada
Placer
Sutter
Yolo
El Dorado
Sonoma
Napa
Sacra-mento
Amador
Alpine
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
San Benito
Fresno
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Orange
Riverside
San Diego
Imperial
N
No Scale
D2

Figure 1




# STATE ROUTE 99 IN TEHAMA COUNTY

Figure 2
SR 99 TCR July 2009

# State Route 99
# Transportation Concept Report

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# Transportation Concept Report

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# State Route 99
# Transportation Concept Report

## *Executive Summary*

The California Department of Transportation (Caltrans) District 2 has prepared this Transportation Concept Report (TCR) for State Route (SR) 99 in cooperation with Tehama County Transportation Commission (TCTC); Tehama County; Cities of Corning, Red Bluff, and Tehama; communities of Vina, Dairyville, and Los Molinos, and the Tribal Governments of Greenville Rancheria, Paskenta Band of Nomlaki Indians, Redding Rancheria, United Maidu Nation, and Wintu Tribe of Northern California.

The TCR is:

- A conceptual document that guides the decision-making process.
- A long-term 20-year plan for a route in the California State Highway System.
- A visionary document and a first step in planning for and/or improving a route.
- A route specific document that defines a route's needs and begins the discussion on investing in the longevity of the corridor.

Included in the study area for the SR 99 TCR is the 25-mile section on SR 99 that runs from the Butte/Tehama County line to the Junction (Jct) of SR 36 in Red Bluff and the section on SR 36 from the Jct of SR 99 to I-5. The segment of SR 36 was added because it completes the critical connection to I-5. SR 99 also functions as a "main street" for the communities of Vina, Los Molinos, and Dairyville.

During the development of the SR 99 TCR, a comprehensive outreach plan and data collection effort was conducted for the corridor. Outreach included public workshops; presentations to the TCTC, Tehama County Board of Supervisors, Corning, Red Bluff, and Tehama City Councils; Internet website; and Tribal Government consultation. The data gathered for the report assisted with the fact sheets and technical analysis.

During the 1960's, a major realignment was proposed for SR 99 from the Butte/Tehama County Line to I-5. This proposed realignment was to be classified as a freeway. Freeway agreements were signed by Tehama County and the State of California and right of way acquired for the proposed project. As the years went by, no further action occurred on this project and in 1978 the California Transportation Commission rescinded the freeway adoption, and shortly after the right of way was sold. During the following 30 years, a number of alignments were proposed by Caltrans, local agencies, and the public, but no agreement was reached as to a preferred alternative.

The analysis provided in this report indicates that substantial and expensive improvements will be needed to existing SR 99 in order to accommodate traffic growth during the next 20 years. Within 50 years, SR 99 must be expanded to 4-lanes to accommodate traffic and be consistent with statewide plans. Given the number of development constraints along the existing highway alignment (including orchards and farmland, utilities, buildings, floodplains, and environmentally sensitive areas), it is appropriate to evaluate alternative alignment concepts. The three main alignment concepts under consideration are as follows:

- Existing route
- South Avenue
- New alignment to Interstate 5 (I-5)

This report does not attempt to identify one concept as the preferred alignment rather it seeks to establish a framework for analyzing the three main alignment concepts and present basic advantages and disadvantages of the three concepts. Based on the findings contained in this report, it is recommended that further studies be undertaken in order to effectively evaluate the value and efficiency of each alignment before an informed decision can be reached regarding the selection of the concept that will result in the best investment for the public and the route.

# State Route 99
# Transportation Concept Report

## *Purpose of the Report*

### Purpose of a Transportation Concept Report (TCR)

A TCR is the first step in planning for the future of a route. By defining the route's needs, the TCR will help focus planning efforts on the most significant problems and acts as a catalyst for discussion about how best to invest on the route.

The TCR promotes a continuing, cooperative, and comprehensive planning process (three C process). A TCR is an analysis of a transportation route prepared by Caltrans in cooperation with other agencies that establishes a 20-year consensus-based concept. The TCR contains a variety of data that influences the route such as traffic volumes, land uses, economic conditions, local arterials, alternative transportation modes, and environmental conditions. Working with numerous internal and external stakeholders is an important part of the process.

As a long-range plan, the TCR is intended to help identify potential future issues on the State highway system before they occur and present possible improvement options to address the identified issues; however, the report does not commit funding or resources for projects. Rather, the TCR presents concepts for highway improvements that may be used to guide future highway investment decisions for route capital improvements. Information in TCRs is used during the preparation of Regional Transportation Plans (RTPs), General Plans (GPs), Project Initiation Documents (PIDs), the State Transportation Improvement Program (STIP), and other regional or local traffic improvement programs. Additionally, the TCR should consider these documents and programs when it is prepared.

**A TCR is:**

- A long-term 20-year plan for California's state highway system.
- A report prepared by the Department with assistance from Regional Transportation Planning Agencies, Local Transportation Commissions, cities, counties, communities, Tribal Governments, private businesses, and the general public.
- A specific route concept document.

**A TCR is not:**

- A funding document that provides money for specific projects.
- An environmental document that conducts an environmental review for specific projects or alternative alignment.
- A design document that identifies specific features.

**A TCR is developed to:**

- Analyze traffic conditions, demographics, economies, and environmental concerns.
- Consider multimodal transportation solutions such as transit, nonmotorized, railways, seaports, and airports.
- Identify potential future projects.

**A TCR is necessary to:**

- Develop a consensus-based vision for a route.
- Identify social, environmental, economic, and quality of life goals.
- Provides Caltrans and Regional Transportation Planning Agencies with a more coordinated and integrated approach to managing transportation resources.

## Importance of the SR 99 TCR

SR 99 is a critical north-south route in California for the movement of people and goods. The statewide vision for SR 99 is a four or more lane facility; however, there is no clear vision on how this is to be achieved in Tehama County. This report explores concepts to achieve this vision. Summaries of these concepts and other research can be found in **APPENDIX A: Other Plans, Policies, and Studies**.

A key element of the SR 99 TCR is to help move towards a consensus-based vision for the future of the route. It is extremely important for future development of the route that Caltrans, partner agencies, and the public share a common vision. The benefits of having a common vision include:

- Identification of improvement projects consistent with long-term goals
- Identification and preservation of needed right of way
- Coordination with General and Regional Transportation Plans
- Public awareness and support

A first step in developing this collaboration regarding SR 99 in Tehama Count was on March 3, 2009 when the TCTC adopted resolution Number 1-2009 to identify the purpose of the TCR and help guide its development. This resolution is in **APPENDIX B: Guiding Resolution.**

**SR 99 PASSING LANES. Section in Tehama County south of South Avenue.**

# State Route 99
# Transportation Concept Report

## *General Route Information*

## Introduction

This section provides general route information regarding SR 99 such as route description, route history, regional setting, population, employment and housing trends, land use, safety, goods movement, transportation options, maintenance, right of way, and route inventory.


## Route Description

SR 99 is a primary north-south transportation route in California. The route is a critical alternative for areas served by Interstate 5 (I-5). SR 99 sometimes functions as a "main street" because of its significance role of traffic movement between and through local communities. In addition, SR 99 serves and traverses the most productive agricultural region in the world.

SR 99 begins at its junction with I-5 in Kern County to the south and terminates 424 miles north at SR 36 near the city of Red Bluff in Tehama County. Being a main transportation facility, the route runs through 11 urbanized areas in 13 counties within California's San Joaquin and Sacramento Valleys. SR 99 runs through such cities as Bakersfield, Tulare, Madera, Merced, Modesto, Stockton, Sacramento, Yuba City, Chico, and to a point on the easterly edge of Red Bluff. The route is an asset to these cities and the smaller communities it travels through and is a major link supporting the economy of the State of California. The agency that owns and operates the highway system in California is Caltrans. Federal Highway Administration (FHWA) has an oversight and management role. Caltrans is compromised of twelve districts, and SR 99 transverses four of these districts (10, 6, 3, and 2). **TABLE 1** lists the length in miles of SR 99 in each of the four Caltrans Districts.

**SR 99 MAP. The path of SR 99 is displayed in red on a California map.**

In the California Streets and Highways Code (Section 399), SR 99 is described as follows:

> *From (a) Route 5 south of Bakersfield to Route 50 in Sacramento.*
>
> *(b) Route 5 in Sacramento to Route 36 near Red Bluff, passing near Catlett and Tudor*

This TCR focuses on the Caltrans District 2 portion of SR 99. Within District 2, SR 99 is approximately 25 miles in length lying exclusively within Tehama County. SR 99 passes through the communities of Los Molinos and Dairyville. The route also provides access to the adjacent community of Vina and the cities of Tehama, Corning, and Red Bluff. **TABLE 2** displays the postmiles of the route.

The SR 99 Corridor in District 2 is described as follows:

- Extends from the Butte/Tehama County line to the Junction with SR 36 near Red Bluff, then SR 36 to I-5 in Red Bluff
- Parallels the Union Pacific Railroad ("I-5 Corridor" line) and California Northern Railroad (West Valley Line)
- Includes major parallel or connecting routes in the local road network: South Avenue, Tehama and Vina Road, Hall Road, Aramayo Way, San Benito Avenue (County Road A8) 99W, Gyle Road, Sherwood Boulevard, Tyler Road, Foothill Boulevard, Shasta Boulevard, and Craig Avenue.

**TABLE 1 Length of SR 99**

| Area | Miles |
|---|---|
| District 2 (Tehama County) | 25 |
| District 3 | 125 |
| District 6 | 173 |
| District 10 | 101 |
| **Route Total** | **424** |

Source: California Department of Transportation, Transportation System Information Program

**TABLE 2 SR 99 County Postmiles**

| County | Postmiles |
|---|---|
| Tehama | 0.00/24.94[1] |

[1] An additional 2 miles on SR 36 connects to the Junction of I-5

Source: California Department of Transportation, Transportation System Information Program

## Route History

SR 99 began as a footpath that Native Americans used for trading, hunting, and fishing; a path that hunters and trappers used for expeditions; a trail that allowed settlers to come to a new world; a road used for goods movement and the transportation of mining supplies; and a route that provides a critical connection for California.

The state's first highway improvement bond act came in 1909 when the Legislature provided $18 million dollars to build the State Highway System. Under this bond, the California Highway Commission (previously known as the Bureau of Highways) proceeded to design and construct a continuous and connected state highway system running north-south through the state. Their goal was to create a road network traversing every county seat and all centers of population on the best grade and alignment possible. Legislative Route 3 ran through the Sacramento Valley from the Oregon State Line (replacing the Siskiyou Trail).

Following World War I, gasoline taxes began to provide stable funds for highway construction, operation, and maintenance. And the growing number of state highway departments united to form the American Association of State Highway Officials (AASHO), which worked to establish a uniform numerical US system. So in 1926, what was then known as Route 3 and Route 7, the Pacific Highway, was re-designated as US 99, a part of the US road network. This north-south central highway ran through many towns as the "main street."

US 99 reached its pinnacle in the few years after World War II. National Highways like US 99 brought growth and prosperity to the states. Many towns and businesses developed along these corridors, making it convenient for tourists and businessmen alike. But it soon became apparent that something more modern was needed with straighter alignment and more controlled access, thus the concept of freeways was born. The proposed system would supplant many of the US system routes with divided Interstate freeways, a fact that diminished the need for US routes. This was also true for US 99 in Tehama County. It was to be replaced by the freeway known as I-5. US 99 was subject to Legislative route renumbering on July 1, 1964 at which time this section became SR 99.

**SR 99 History within District 2:**

1909: Legislative Route 3-Red Bluff to Oregon State Line
1926: Red Bluff to Oregon State Line-US 99
1953: I-5 adopted as Federal Freeway
1959: SR 99 added to Freeway & Expressway System
1964: Decertification of US 99 authorized
1969: Decertification of US 99 in District 2 complete
1969: Certification of SR 99 in District 2

SR 99 was added to the Freeway and Expressway System in its entirety in 1959. The route stretches almost the entire length of the Central Valley. SR 99 runs from the south end at I-5 near Wheeler Ridge in Kern County to its north end at SR 36 near Red Bluff in Tehama County.

The section from the Butte/Tehama County line through Los Molinos to I-5 was declared a freeway in 1960. Freeway agreements were signed by Tehama County and the State of California in 1970; however, the freeway adoption was rescinded in 1978 and right of way between Vina and I-5 was sold, as a result of legislative action.

For the last 20 years, the focus has been on maintaining the existing route. The focus has been on rehabilitating bridges and adding standard shoulders along the route at such locations as Singer Creek, Mill Creek, Antelope Creek, Butler Slough, Deer Creek, Dye Creek, Mill Creek, and Toomes Creek.

By the early 1990's, however, it became clear that additional passing opportunities were needed. In 1998, northbound and southbound passing lanes were added to the first five miles of the route in Tehama County.

## Regional Setting

**Tehama County**

Tehama County's 2,962 square miles create a unique setting. Nestled in the northern Sacramento Valley, Tehama County is a two-hour drive from Sacramento. Starting in the snowy Sierras to the east (highest point is 8,200 ft.), Tehama County unfolds onto rolling foothills, range land, and flat-topped buttes; then sweeps down onto the fertile floor of the Sacramento River Valley (elevation at Red Bluff is 341 ft.). The river valley cuts a rich, 20-mile-wide swath through the Central portion of Tehama County and provides endless varieties of outdoor recreation. Tehama County is the gateway to Lassen Volcanic National Park, as well as the Yolla Bolly Mountains and the Middle Eel and Ishi Wilderness Areas. Surrounding counties include Shasta to the north, Plumas and Butte to the east Glenn to the south, and Trinity and Mendocino to the west. State Highways are 12% of the maintained mileage in the county, but account for 66% of the Daily Vehicle-Miles of Travel (DVMT).

## Population, Employment, and Housing Trends

Economic forecasts have been prepared for each county in California. These forecasts are developed for the California Economic Forecast Project and were provided by the California Department of Transportation, Office of Transportation Economics. The Project provides a consistent set of long-term socio-economic forecasts for each county. The data for these tables is an extensive collection of County-level economic and demographic variables from a myriad of sources in California.

**TABLE 3** displays the current and future economic forecasts for Tehama County.

**TABLE 3**
**Tehama County Economic Forecast**

| Year | Population (People) | Registered Vehicles (thousands) | Households (thousands) | New Homes | Total Taxable Sales (billions) | Personal Income (billions) | Real Per Capita Income (dollars) | Unemploy-ment Rate (percent) |
|---|---|---|---|---|---|---|---|---|
| 2000 | 55,918 | 56.4 | 21.0 | 221 | $0.47 | $1.07 | $22,912 | 6.5 |
| 2005 | 60,165 | 66.7 | 22.4 | 653 | $0.68 | $1.38 | $24,362 | 6.9 |
| 2010 | 63,845 | 73.1 | 24.6 | 220 | $0.92 | $1.75 | $25,407 | 6.9 |
| 2015 | 67,390 | 82.3 | 25.8 | 270 | $1.18 | $2.27 | $28,225 | 6.6 |
| 2020 | 71,492 | 91.6 | 27.1 | 264 | $1.48 | $2.90 | $30,776 | 7.2 |
| 2025 | 75,224 | 97.8 | 28.4 | 276 | $1.80 | $3.71 | $33,142 | 7.6 |
| 2030 | 78,639 | 103.8 | 29.7 | 271 | $2.28 | $4.70 | $35,444 | 6.4 |

Source: Caltrans, Office of Transportation Economics

## Land Use

**Tehama County**

Tehama County is largely rural in nature with isolated pockets of population primarily concentrated along the valley's major transportation corridors of I-5 and SR 99. As the County extends westward and eastward from these populated areas, large ranches and government land holdings dominate the terrain.

The existing land use pattern within Tehama County near SR 99 primarily consists of a combination of upland agriculture, valley floor agriculture, and residential/commercial in small communities. Some of these areas contain highly valuable agricultural soil resources. The unincorporated communities of Los Molinos and Dairyville lie directly on SR 99. Also, the incorporated cities of Red Bluff, Corning, and Tehama and the unincorporated communities of Vina and Gerber are near SR 99.

During the next 20 years the Tehama County General Plan allows for reasonable growth opportunities within the existing communities and cities along SR 99. The General Plan anticipates the most significant future growth opportunities to be located along the north-south I-5 corridor.

**TEHAMA 99. Orchards near Dairyville.**


**TEHAMA 99. Retail shopping center in Los Molinos.**

## Safety

The collision information provided in this report was taken from Table B of the Traffic Accident Surveillance and Analysis System (TASAS). This information should be used for general planning purposes and as an indicator of how the collision rate of a particular roadway segment compares to the statewide average collision rate on similar routes. However, statewide rates higher than the average do not necessarily indicate that corrective actions by the Department are warranted. Collision rates can be greatly influenced by the length of the segment as well as the time period being measured. **TABLE 4** provides a five-year summary of the traffic collision rates for SR 99 in District 2.

**TABLE 4**
**Traffic Collision Rates (per million vehicle miles) on SR 99 in District 2**

| State Average Rate for Highway Type | | Actual Accident Rate on Highway Segment | |
|---|---|---|---|
| **Fatal-plus-injury Collision Rate** | **Total Collision Rate** | **Fatal-plus-injury Collision Rate** | **Total Collision Rate** |
| 0.43 | 0.88 | 0.34 | 0.74 |

Source: Caltrans-District 2, Office of Traffic Operations, TASAS Collision Data from April 1, 2003 to March 31, 2008

## Goods Movement

Freight or goods movement is a term used to denote goods or produce transported by ship, plane, train, or truck. Goods movement is an integral element of this region's economy and transportation system. Local businesses rely on the goods movement system to take their products to market and receive supplies. Residents rely on the goods movement system to bring consumer goods to the region. As this region continues to grow, goods movement will continue to be a key transportation component.

**The entire SR 99 corridor is designated as a Terminal Access (TA) route, which is part of the Surface Transportation Assistance Act Network (STAA).**

### Truck Freight

Trucking plays a vital role in goods movement along the SR 99 corridor with most freight being delivered by trucks.

According to the *Annual Average Daily Truck Traffic on California State Highway System*, average truck percentages in 2005 ranged from 9% to 16% on SR 99 in District 2. The low of 9% occurs at the Butte/Tehama County Line and a high of 16% occurs at Kauffman Avenue near Dairyville in Tehama County. The truck AADT volumes range from approximately 900-1350. Five-axle trucks consist of over 70% of the truck traffic.

All of SR 99 is classified as a Terminal Access route that is part of the Surface Transportation Assistance Act (STAA) Network. SR 99 has no restrictions for Terminal Access trucks.

**Truck Traffic Volumes at Specific Locations on the SR 99 Corridor in District 2 (2007)**

| | |
|---|---|
| But/Teh Co Line | 1100 (9% of AADT) |
| South Avenue | 900 (14% of AADT) |
| Sherman Street | 900 (13% of AADT) |
| Kauffman Avenue | 1350 (16% of AADT) |
| Jct SR 36 | 1200 (12% of AADT) |

### Rail Freight

Rail freight is the transport of goods along railroads. Rail transport makes highly efficient use of space: a double-track rail line can carry more freight in a given amount of time than a four-lane road. Three classes of railroads in the United States exist: Class I, II, and III. Class I railroads consist of the largest freight railroads and have an operating revenue of over $346 million (2006). The Union Pacific Railroad (UP) is a Class I railroad and is one of the largest railroad networks in the United States. Along the West Coast, the UP I-5 Corridor Line offers the most efficient north-south rail transportation service to main east-west corridors at Seattle, Portland, Oakland, and Los Angeles. Additionally, this rail line parallels I-5 and SR 99 in Tehama County. This UP lines runs through Los Molinos, Tehama, Gerber, Las Flores, and Red Bluff during its journey north. The rail line is immediately adjacent to the west of Tehama 99 PM 1.4/11.8.


**UP MAP. Class I Rail lines of Union Pacific.**

A Class II is a mid-size freight hauling railroad. In terms of revenue (2006), a Class II railroad carries revenues greater than $20.5 million, but less than $277.7 million for at least three consecutive years. There are no Class II railroads near SR 99 in Caltrans District 2.

The Class III railroads contain railroads with annual operating revenue of less than $20 million (1991 dollars). Class III railroads are typically local short line railroads serving a very small number of towns or industries; many Class III railroads were once branch lines of larger railroads that were spun off, or portions of mainlines that had been abandoned. There is one short line railroad known as California Northern Railroad (CFNR) near SR 99. CFNR is owned by RailAmerica, Inc. and operates the West Valley Line over Union Pacific tracks under a long-term lease. This line connects to the UP I-5 Corridor Line and runs from the City of Tehama and extends south to the west side of the Sacramento Valley. It also terminates in Sacramento and provides access to another line that connects to the San Francisco Bay Area at Woodland.


**CFNR MAP. Class III Rail lines of California Northern Railroad Company.**

**Smaller General Aviation Airports near SR 99 in District 2**

Red Bluff Municipal Airport
Corning Municipal Airport

## Air Cargo

In addition to people, commercial airports are responsible for moving large volumes of air cargo around the clock. Cargo airlines often have their own on-site and adjacent infrastructure to rapidly transfer parcels between ground and air modes of transportation.

There are no major commercial airports located directly on SR 99 in District 2. The closest major commercial airports to the SR 99 corridor are the following: Sacramento International Airport and San Francisco International Airport. There are municipal hubs with cargo distribution areas at the Redding Municipal Airport (Redding, CA) in Caltrans District 2 and Chico Municipal Airport (Chico, CA) in Caltrans District 3. Some additional smaller general aviation airports transporting cargo near the corridor include: Corning Municipal Airport, (Corning, CA) and Red Bluff Municipal Airport (Red Bluff, CA),

**CORNING AIRPORT AERIAL MAP. General aviation airport in Corning just southwest of SR 99.**

## Transportation Options

The categories that follow provide information regarding transportation options for passengers (transit, rail, air, and nonmotorized).

**Transit**

Offering public transportation in Tehama County along the SR 99 corridor is challenging for a number of reasons: long distances between communities, limited/dispersed population base, scheduling difficulty, and limited funding. The need for affordable, convenient, and dependable transit service will continue to grow as the population increases along this corridor.

*Transit-Interregional*

Commercial bus service is available in Tehama County from Greyhound Bus Lines and Mt. Lassen Motor Transit. Greyhound offers fixed route interregional and cross-country transportation from a bus stop located on SR 36 in Red Bluff. Mt. Lassen Motor Transit is a locally owned tour and provides tour and charter service.

*Transit-Intra-regional*

Tehama County provides fixed route transit and paratransit services for the regional area.

Tehama County manages Tehama Rural Area Express (TRAX). Service area includes the cities of Corning, Red Bluff, and Tehama, as well as unincorporated communities along SR 99. These communities include Dairyville, Los Molinos, and Vina. Four local transit routes connect to the SR 99 corridor.

ParaTRAX provides ADA paratransit and senior transit (age 70+) curb to curb service and does not follow fixed routes or schedules. Typically mini-vans or cutaways are used to provide paratransit service and often the service is for individuals with disabilities and seniors who are unable to use fixed route transportation systems.

**Rail Passenger Travel**

Amtrak operates trains and Amtrak Motor Coaches to provide service to rail passenger lines. Trains or motor coaches do not stop at any locations along the SR 99 corridor, but the stations are in close proximity to provide service. The Amtrak Motor Coaches are not for local transportation use, but only as connections to or from Amtrak trains.



**TRAX. Bus stop near Junction of SR 36 and SR 99.**

*Corning Station*
The Corning stop is at the Transportation Center on the corner of Solano Street and Third Streets. It is used by Amtrak Motor Coach connections linking buses to Amtrak's San Joaquin in Stockton and Capitol Corridor Trains in Sacramento.

*Red Bluff Station*
The station picks up passengers at Red Bluff Bus and Ride located on at Main Street/Rio Street It is used by Amtrak Motor Coach connections linking buses to Amtrak's San Joaquin in Stockton and Capitol Corridor Trains in Sacramento.

**Air Passenger Travel**
Along the SR 99 corridor in Caltrans District 2, there are no air passenger travel airports. Nearby there are municipal airports in Redding and Chico that serve commercial airlines for air passenger travel.

Further from the corridor outside of District 2, you will find two additional international airports carrying passengers: San Francisco International (San Francisco, CA) and Sacramento International (Sacramento, CA).

Some additional smaller general aviation airports transporting small numbers of people near the SR 99 corridor include: Corning Municipal Airport (Corning, CA) and Red Bluff Municipal Airport (Red Bluff, CA).

**Nonmotorized Transportation**
Nonmotorized transportation includes pedestrian and bicycle travel. Pedestrians and bicyclists are allowed on the entire SR 99 corridor in District 2. Additionally, since portions of I-5 are closed to bicyclists, SR 99 is the designated alternative bicycle route. Legal authority regarding bicycle and pedestrian use on freeways, expressways, or designated portions is specified in the California Vehicle Code section 21960. The Caltrans District 2 Cycling Guide for State Highways of Northern California includes route status for bicycle use on the State Route 99 as well as other routes in District 2.

The 2008 Tehama County Bikeways Plan lists SR 99 as a regional corridor. The plan identifies Tehama County's countywide priorities which include a proposed bike trail from Dairyville to Los Molinos.

**AMTRAK. Motor Coaches stop near SR 99 to connect to or from Amtrak trains.**


**AIRPORT. Chico Municipal Airport is off SR 99 and in Butte County.**


**PEDESTRIAN. A community member walks along SR 99 in Los Molinos.**

## Maintenance

The goal of Caltrans is to maintain existing roadway facilities as nearly as possible to the original condition as constructed or improved. The Maintenance Program is assigned the care and upkeep of the State highways and attempts to maximize maintenance with limited funding.

The degree and type of maintenance for each highway shall be determined at the discretion of the authorities charged with its maintenance, taking into consideration traffic requirements and available funding. For maintenance programming purposes, the SR 99 corridor is considered a Maintenance Service Level 1 (MSL 1 or Class 1). MSL 1 highways consist of interstate highways, freeways, and other principal arterial routes with traffic volumes over 5,000 vehicles per day. Caltrans provides the highest level of priority maintenance for MSL 1 facilities.

Caltrans maintenance teams also perform field maintenance projects which consist of many different types of work, including crack sealing; dig outs; slab replacements; and profile grinding. Additionally, landscape crews perform regular brush removal. In addition to field maintenance projects, Caltrans also uses contracts to utilize businesses in private industry to complete such work as: chip and slurry seals, thin blanket overlays and grinder dig outs.


**REHABILITATION. Replace bridge at Toomes Creek.**


**MAINTENANCE. Brush removal south of Los Molinos.**

## Right of Way

Right of way is real estate required for transportation purposes and includes the facility itself (roadway and shoulders) as well as associated uses (maintenance structures, drainage systems, and roadside landscaping). A portion of Segments 1 and 2, shown in **TABLE 5**, are access controlled. This means the state controls ingress to and egress from all properties abutting the freeway right of way.

The existing right of way for SR 99 is summarized in **TABLE 5.**

**RIGHT OF WAY. SR 99 right of way includes the highway facility itself.**

**TABLE 5**
**SR 99 Existing Right of Way**

| Segment | PM | Total | West of Centerline | East of Centerline | Control |
|---|---|---|---|---|---|
| 1 | 0.0 - 0.2 | 100' | 50’ | 50' | |
| | 0.2 - 0.6 | 160' | 40’ | 120' | Access Control |
| | 0.6 - 2.5 | 160' | 40’ | 120' | Access Control |
| | 2.5 - 4.49 | 160' | 40' | *120’ | Access Control |
| 2 | 4.49 - 5.0 | Varies | 40 - 50' | 70 - 120' | Access Control |
| | 5.0 - 7.3 | Varies | 30 - 45' | 30 - 130' | |
| | 7.3 - 11.18[1] | Varies | 30' | 30 - 130' | |
| 3 | 11.18 – 12.53[2, 3] | Varies | 30-60' | 30-70' | |
| 4 | 12.53 - 19.52[4] | Varies | 30 -100 | 30 -100 | |
| 5 | 19.52 - 24.94[5] | 100' | 60 - 100' | 60 - 100' | |
| 6 | 41.85 - 44.0[6] | 120' | 120' | 120' | |

Note: East and West indicate distances from highway centerline

[1] The Union Pacific Railroad begins paralleling route on west side
[2] Right of way varies through Los Molinos
[3] The Union Pacific railroad ends paralleling route at PM 11.98
[4] Most common total right of way width is 60 - 100'
[5] Right of way between PM 23 - 24 is 50'
[6] R/W is 100' at some areas

Source: Caltrans, North Region Office of Right of Way

## Access Management

The type and extent of access allowed onto a route has a direct effect on the facility's safety and operation-more access points or less control of access locations typically reduces travel speeds and introduces potential vehicle conflict points or locations on the facility. Access Management entails proactive efforts by the state and local agencies to coordinate plans for strategic placement of new access or manage existing access to improve traffic operations. Points of entry and exit are necessary for business and residential needs, but also create locations for cross traffic and potential conflict between vehicles, bicyclists, and pedestrians.

Well-managed and designed access can encourage business investment, improve aesthetics, and reduce adverse social, economic, and environmental impacts. The benefits of access management may include:

- Improving safety
- Lowering collisions involving pedestrians and bicyclists
- Reducing traffic congestion
- Maintaining efficiency of mainline operations
- Enhancing the environment by reducing fuel consumption and emissions, and
- Improving the appearance and quality of the built environment for the communities.

Methods to manage access may include:

- Eliminating access points near major intersections
- Spacing signals uniformly
- Consolidating access points to reduce frequency and increase spacing (create joint or shared access)
- Use of left and right-turn channelization
- Implementing non-traversable medians or directional median openings for left turns or u-turns
- Utilizing two-way left turn lanes, and
- Developing local streets and roads that parallel arterial and serve abutting properties

**ACCESS. The community of Los Molinos has many driveways connecting to SR 99.**

**Access Conditions along SR 99:**

- Access controlled section with passing lanes (Segments 1NB and 1SB).
- Access points are uncontrolled in the communities of Vina, Dairyville, and Los Molinos, and this can lead to vehicle conflicts and delays.
- Pedestrian and bicyclist activities impacted by number of access points.
- Considerable amount of left and right turning vehicles that can cause delay for through traffic at a number of locations.
- Large agricultural equipment creates conflicts in travel.
- The railroad runs parallel and is very close to the highway along the west side. When the railroad comes through town, train arms block off access roads.

## Route Inventory

This section provides an inventory of existing elements currently found on the SR 99 route. An additional Intelligent Transportation System inventory can be found in **APPENDIX C: Intelligent Transportation Systems.**

### Highway Type

SR 99 is classified as both a conventional highway and an expressway. **TABLE 6** displays highway types on SR 99. A conventional highway is a highway without control of access which may or not be divided. Grade separations at intersections or access control may be used when justified at spot locations. An expressway is an arterial highway with at least partial control of access which may or not be divided or have grade separations at intersections.

**TABLE 6**
**Highway Type**

| County | Postmile | Type |
|---|---|---|
| Tehama | 0.0/0.2 | Conventional Highway |
| Tehama | 0.2/4.49 | Expressway |
| Tehama | 4.49/24.94 | Conventional Highway |

Source: California Department of Transportation, Office of Transportation Information

### Passing Lanes

A passing lane is added to improve passing opportunities in one direction of travel on a two-lane highway. Listed in **TABLE 7** are passing lanes on SR 99.

**TABLE 7**
**Passing Lanes**

| County | Postmile | Direction | Length (miles) |
|---|---|---|---|
| Tehama | 0.60/2.4 | Northbound | 1.8 |
| Tehama | 4.49/3.0 | Southbound | 1.5 |

Source: California Department of Transportation, Division of Traffic Operations

### Shoulders

Shoulders are the portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses. The current shoulder standard for two-lane conventional highways with over 400 Average Daily Traffic is 8 feet. For expressways, the current shoulder standard is 8 feet. On SR 99 most locations meet inside and outside shoulder widths except certain structures.

**TABLE 8**
**Shoulder Width on Roadway**

| County | Postmile | Average Shoulder Width (feet) |
|---|---|---|
| Tehama | 0.0/24.94 | 8[1] |
| | | |

[1]Most locations meet inside and outside shoulder widths except certain structures.
Source: California Department of Transportation, Office of Transportation Information

**Bridges**
Bridges are structures of more than 20 feet in length. There are 21 bridges on the SR 99 corridor in District 2.

**TABLE 9**
**Bridges**

| Postmile | Bridge Number | Bridge Name | Year Built |
|---|---|---|---|
| .23 | 08 0156 | Singer Creek | 1993 |
| 2.35 | 08 0076 | Lake Draw | 1912 |
| 3.67 | 08 0075 | Short Creek | 1912 |
| 5.82 | 08 003 | Deer Creek Overflow | 1921 |
| 5.99 | 08 0164 | Deer Creek | 2002 |
| 7.53 | 08 0077 | Long Creek | 1912 |
| 8.38 | 08 0005 | Toomes Creek | 2008 |
| 9.14 | 08 0006 | Champlin Slough | 1918 |
| 12.59 | 08 0078 | Los Molinos Creek | 1900 |
| 13.33 | 08 0160 | Mill Creek | 2004 |
| 13.96 | 08 0008 | South Branch of North Fork Mill Creek | 1921 |
| 14.05 | 08 0009 | North Branch of North Fork Mill Creek | 1921 |
| 15.55 | 08 0010 | Sunset Canal | 1920 |
| 18.02 | 08 0161 | Antelope Creek | 2003 |
| 19.54 | 08 0013 | Butler Slough | 1924 |
| 21.13 | 08 0014 | Craig Creek | 1924 |
| 22.54 | 08 0015 | New Creek | 1924 |
| 24.13 | 08 0016 | Mill Race Creek | 1924 |
| 24.66 | 08 0017 | Salt Creek Overflow | 1947 |
| 24.78 | 08 0018 | Salt Creek Overflow | 1924 |
| 24.84 | 08 0019 | Salt Creek | 1924 |

Source: California Department of Transportation, Division of Maintenance, Office of Structures

**Weigh Stations**
The California Highway Patrol operates an intermittent "mini-site" weigh station on SR 99 in Tehama County. Another name for this type of weigh stations is "jump" scales.

**TABLE 10**
**Intermittent Weigh Stations**

| County | Postmile | Direction/Type | Location |
|---|---|---|---|
| Tehama | 3.67 | Northbound | Vina |

Source: California Department of Transportation, Office of Traffic Operations, Truck Services

**Maintenance Stations**

Maintenance stations are facilities used by Caltrans to maintain the highway year round. There are no maintenance stations on SR 99. There is a Red Bluff maintenance station that covers the SR 99 maintenance area.

**TABLE 11**
**Maintenance Station**

| County | Route | Postmile | Maintenance Station |
|---|---|---|---|
| Tehama | Off of SR 36W (Hess Road) | L57.28 | Red Bluff |

Source: California Department of Transportation, Division of Maintenance

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# State Route 99
# Transportation Concept Report

## *Corridor Traffic Assessment-Current Conditions*

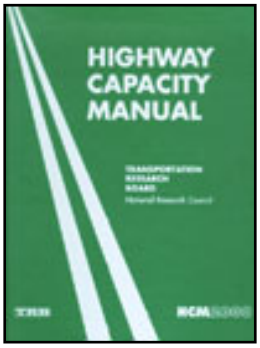
## Introduction

This section provides a summary of current traffic volumes and level of service analysis. Data is provided on commuting work flows between counties and traffic mix on SR 99 in Northern California. Additionally, fact sheets are provided for each segment.

**State Route 99 has been divided into segments for analysis purposes. One segment of SR 36 has also been included.**

## Traffic Analysis Tools

The standard reference in highway capacity analysis is the **Highway Capacity Manual 2000 (HCM 2000)** prepared by the Transportation Research Board (TRB) National Research Council, Washington, D.C. HCM 2000 is a collection of state-of-the-art techniques for estimating the capacity and determining the level of service (LOS) for transportation facilities. The HCM represents a systematic and consistent basis for evaluating transportation facilities with procedures that are applicable nationwide. The HCM 2000 builds upon and expands the procedures and methodologies put forth in the 1950, 1965, 1985, 1994, and 1997 manuals as well as other related research projects.




The HCM 2000 contains analytical methodologies for the following situations: urban streets, signalized intersections, unsignalized intersections, pedestrians, bicycles, two-lane highways, multilane highways, freeway facilities, basic freeway segments, freeway weaving, ramps, interchanges, and transit. Capacity and LOS is determined differently for each facility type, so direct comparisons across facility types should not be made. LOS is a qualitative measure used to describe operational conditions within a stream of traffic. Six letters designate each level, from A to F, with LOS A representing the best operating conditions, and LOS F the worst.

Two-Lane Highway Segments Methodology – Chapters 12 and 20, HCM 2000:

The two-lane highway methodology is applicable to State Route 99. A two-lane highway is an undivided roadway with two lanes (one for use by traffic in each direction). On a two-lane undivided highway, traffic flow is affected by a number of factors, including geometric conditions (lane and shoulder widths), access points, and terrain. Traffic flow in one direction is also influenced by traffic flow in the other direction. The performance measures used to determine LOS for two-lane highways are the percent time spent following and average travel speed. Percentage of time spent following is the average percentage of travel time that vehicles must travel in platoons behind slower vehicles due to the inability to pass. Average travel speed is the average of the travel time of all vehicles over a designated interval. Higher speeds and less time following behind other vehicles equate to higher LOS while lower speeds and more time following another vehicle equate to lower LOS.

Highway Capacity Software (HCS+) is the implementing tool designed to replicate procedures, manual worksheets, and examples in the HCM.

For purposes of analysis, two-lane highways are divided into two highway classifications. The two classifications are based on the primary type of use and driver expectations. The classes are as follows:

**Class I**. These are two-lane highways on which motorists expect to travel at relatively high speeds. Two-lane highways that are major inter-city routes, primary arterials connecting major traffic generators or primary links in state or national highway networks generally are assigned to Class I.

**Class II**. These are two-lane highways on which maintaining high travel speeds are not necessarily the most important objective of motorists. Two-lane highways that serve as scenic or recreational routes, are not primary arterials, or pass through rugged terrain generally are assigned to Class II.

The LOS for Class I highways is defined in terms of both percent time spent following and average travel speed. For Class II facilities, the LOS is defined only in terms of percent time spent following.

For purpose of the capacity analysis, State Route 99 is classified as Class I highway and all segments (1-5) are analyzed using this methodology. SR 99 was selected as Class I because the route is a principal arterial and a commuter route which most motorists expect to travel at relatively high speeds. SR 99 is also a primary north-south route in Northern California, parallels I-5, and connects to I-5, other regional highways, and local arterials.

**TABLE 12** provides the criteria (break-points) for level of service for a Class I highway such as SR 99.

**TABLE 12**
**Level of Service Criteria for Two-Lane Highways in Class I**

| LOS | Percent Time Spent Following | Average Travel Speed (mi/h) |
|---|---|---|
| A | ≤35 | >55 |
| B | >35-50 | >50-55 |
| C | >50-65 | >45-50 |
| D | >65-80 | >40-45 |
| E | >80 | ≤40 |
| F | Vehicle flow rate exceeds segment capacity | |

Source: Highway Capacity Manual 2000, Page 20-3, Exhibit 20-2.

One additional segment (#6) has been analyzed for this report. The segment on SR 36 from the junction of SR 99 to I-5 was included because of the critical connection it provides for the corridor.

Multilane Highway Segments Methodology – Chapter 21, HCM 2000:

The multilane highway methodology is applicable to SR 36. A multilane highway is a highway with at least two lanes for the exclusive use of traffic in each direction, with no control or partial control of access, but that may have periodic interruptions to flow at signalized intersections. Inputs include geometric data, free-flow speed, and traffic volume. Average Travel Speed is the basic measure for LOS. The average travel speed over a given length of roadway is determined from two factors: the running time (speed) of vehicles on the road itself and the delay encountered by through vehicles at signalized intersections. Higher speeds on the roadway with less delay at signalized intersections equate to higher LOS while lower speeds and greater delay at signalized intersections equate to lower LOS.

**TABLE 13** provides the criteria (break-points) for level of service for a Multilane Highways such as SR 36 (Segment 6)

**TABLE 13**
**Level of Service Criteria for Multilane Highways**

| Free=Flow Speed (mi/h) | Criteria | LOS | | | | |
|---|---|---|---|---|---|---|
| | | A | B | C | D | E |
| 60 | Maximum Density (pc/mi/ln)<br>Average Speed (mi/h)<br>Maximum volume to capacity ratio (v/c)<br>Maximum service flow (pc/h/ln) | 11<br>60<br>0.30<br>660 | 18<br>60<br>0.49<br>1080 | 26<br>59.4<br>0.70<br>1550 | 35<br>56.7<br>0.90<br>1980 | 40<br>55<br>1.00<br>2200 |
| 55 | Maximum Density (pc/mi/ln)<br>Average Speed (mi/h)<br>Maximum volume to capacity ratio (v/c)<br>Maximum service flow (pc/h/ln) | 11<br>55<br>0.29<br>600 | 18<br>55<br>0.47<br>990 | 26<br>54.9<br>0.68<br>1430 | 35<br>52.9<br>0.88<br>1850 | 41<br>51.2<br>1.00<br>2100 |
| 50 | Maximum Density (pc/mi/ln)<br>Average Speed (mi/h)<br>Maximum volume to capacity ratio (v/c)<br>Maximum service flow (pc/h/ln) | 11<br>50<br>0.28<br>550 | 18<br>50<br>0.45<br>900 | 26<br>50.0<br>0.65<br>1300 | 35<br>48.9<br>0.86<br>1710 | 43<br>47.5<br>1.00<br>2000 |
| 45 | Maximum Density (pc/mi/ln)<br>Average Speed (mi/h)<br>Maximum volume to capacity ratio (v/c)<br>Maximum service flow (pc/h/ln) | 11<br>45<br>0.26<br>490 | 18<br>45<br>0.43<br>810 | 26<br>45<br>0.62<br>1170 | 35<br>44.4<br>0.82<br>1550 | 45<br>42.2<br>1.00<br>1900 |

Source: Highway Capacity Manual 2000, Page 21-3, Exhibit 21-2.
pc/mi/ln=passenger car/mile/lane
mi/h=miles/hour
v/c=volume/capacity
pc/h/ln=passenger car/hour/lane

## Target LOS: C/D Threshold

Caltrans District 2 seeks to implement improvements on SR 99 when LOS is projected to fall below LOS C. This improvement standard is commonly referred to as the "C/D Threshold." When a segment is forecasted to fall to LOS D, then improvements should be pursued.

**Concept LOS:**
**Caltrans LOS concept for SR 99 within District 2 is the C/D threshold.**

## Current Traffic Conditions and LOS

**Base Year Traffic and LOS for SR 99**

The Base Year for this study is 2007 using 2007 traffic and truck volumes. Annual Average Daily Traffic (AADT) is the total traffic volume for the year divided by 365 days. The peak hour is the hourly volume during the maximum-volume hour of the day. Using the peak hour of a typical month, LOS is calculated in this report. In the peak hour of the peak month (typically summer), the route will operate slightly poorer.

Truck and Recreational Vehicle (RV) data is typically displayed as a percentage of the AADT. For example, AADT is 10,000 with 10% trucks. This means that there are 1,000 trucks. In the future, truck and RV traffic is forecast to remain the same percentage of AADT.

**TABLE 14** provides a summary of SR 99 Base Traffic (2007) and LOS for Tehama County during the peak hour of a typical month. Segments along SR 99 within District 2 that are projected to operate below the C/D threshold are shaded with diagonal stripes. Additional information can be found on the SR 99 Segment Fact Sheets.

For the segments (3 through 5) below the C/D threshold, the current operating conditions are:

- Passing demand is high, but passing becomes extremely difficult due to the volume of oncoming vehicles and/or lack of passing opportunities (such as passing lanes or broken yellow stripes on the highway)
- Platoon sizes average around 5-10 vehicles
- Turning vehicles and roadside distractions cause slowing of through vehicles
- Motorists are delayed in the travel stream as much as 80% of the time
- Average travel speeds have dropped below the posted speed limit

**2007 TRAVEL TIME**

**(over 27 mile route-from SR 99 at Butte/Tehama County Line To Jct SR 36 to I-5)**

**Base Travel Time and Conditions**
***Estimated Travel Time: 33 minutes***

***Conditions: Lighter traffic volumes (some vehicles, few trucks), no need for passing, unrestricted movements, and travelling entire distance at posted speed limits***

---

**Peak Travel Time and Conditions**
***Estimated Travel Time: 37 minutes***

***Conditions: Higher traffic volumes, platoons, significant access points, traffic control (signals), trucks and agriculture equipment in the traffic stream, pedestrian/bicyclists, and travelling entire distance near posted speed limits***

**TABLE 14**
**SR 99 Base Traffic (2007) and LOS for Tehama County**

| Segment | County | Route | Postmile | Segment Description | 2007 AADT | 2007 Peak Hour | 2007 LOS AADT |
|---|---|---|---|---|---|---|---|
| 1NB | Tehama | 99 | 0.00/4.49 | Butte/Tehama County Line to South Avenue-NB | 6700 | 750 | C |
| | | | 0.60/2.4 | Passing lane-NB | | | |
| 1SB | Tehama | 99 | 4.49/0.00 | Butte/Tehama County Line to South Avenue-SB | 5300 | 600 | C |
| | | | 4.49/3.0 | Passing lane-SB | | | |
| 2 | Tehama | 99 | 4.49/11.18 | South Avenue to Sherman Street | 7200 | 820 | C |
| 3 | Tehama | 99 | 11.18/12.53 | Sherman Street to Tehama Vina Road | 10900 | 950 | E |
| 4 | Tehama | 99 | 12.53/19.52 | Tehama & Vina Road to Kauffman Avenue | 8500 | 830 | D |
| 5 | Tehama | 99 | 19.52/24.94 | Kauffman Avenue to Jct SR 36 (Red Bluff East) | 9800 | 960 | D |
| 6 | Tehama | 36 | 44.00/41.85 | Jct SR 36 (Red Bluff East) to Jct I-5 | 16700 | 1700 | B[1] |

Below C/D Threshold

NB and SB are analyzed in a separate direction due to passing lanes. Total AADT is 12,000; Peak Hour is 1350.

Detailed traffic and LOS information is provided in the Segment Fact Sheets.

[1]This segment is currently 5 lanes.

Source: Caltrans, District 2, Office of System Planning

**Definitions:**

| | |
|---|---|
| Segment | Number system used to identify sections of freeway for analysis. There are 6 segments running from south to north. One segment has directional northbound (NB) and southbound (SB) analysis. |
| County | Jurisdiction route is in-Tehama County |
| Route | State Route 99 |
| Postmile | The mileage measured from the southern county line, or from the beginning of a route. Each postmile along a route in a county is a unique location in the state highway system. |
| NB/SB | Northbound/Southbound |
| Segment Description | Provides the starting and ending locations for the segment. Usually a county line, structure, or change in number of travel lanes. |
| AADT | Annual Average Daily Traffic is the total traffic volume for the year divided by 365 days. |
| Peak Hour | Hourly volume during the maximum-volume hour of the day. |
| LOS AADT | Level of Service for Average Annual Daily Traffic. Term used to describe the quality of traffic flow during the peak hour of a typical day on the facility. |

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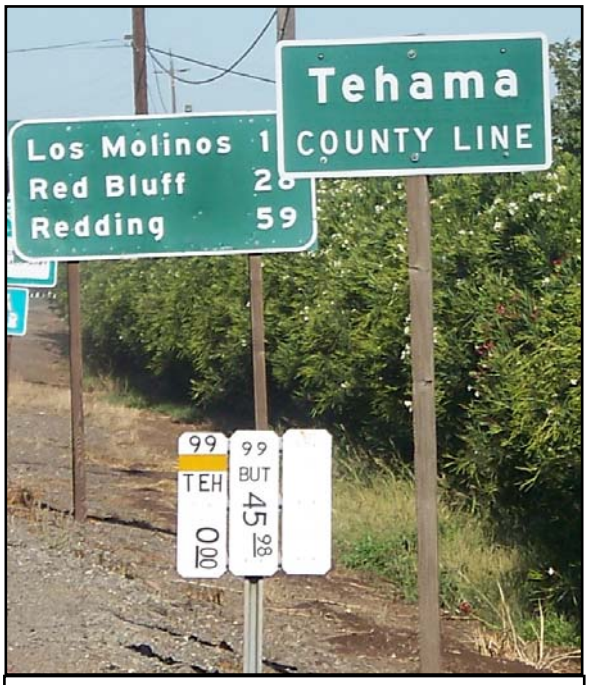
## Commuting Flow

Commuting is the flow of workers from one area to another. The U.S. Census collects worker data once every decade. Census 2000 compiled responses on where people worked (workplace) and lived (residence). For Tehama County and Butte County, the 2000 Census Commute to Work data shows about 1,800 workers commuting between the two counties. For Tehama County and Shasta County, the data shows about 4,500 workers commuting between the two counties. **TABLE 15** illustrates the county-to-county commute flows.




**COUNTY LINES. Tehama/Butte County line.**

**TABLE 15**
**County to County Commuting Flows**

| Residence | Workplace | | | |
|---|---|---|---|---|
| | Tehama | Shasta | Glenn | Butte |
| Tehama | 15,734 | 2,464 | 528 | 1,137 |
| Shasta | 2,026 | 59,885 | 53 | 143 |
| Glenn | 490 | 19 | 7,327 | 1,774 |
| Butte | 667 | 172 | 1,067 | 73,303 |

Source: 2000 Census, Commute to Work Data

## Traffic Mix on SR 99 in Northern California

Two recent studies help to identify the level of local and interregional (long distance) traffic on SR 99. These studies were:

- Origin and Destination Traffic Study (O & D Study) (Kimley-Horn and Associates, Caltrans, 2006). The purpose of this study was to understand the travel patterns in northern Tehama County and southern Shasta County on key state and interstate routes.
- Corning Area/South Avenue Traffic Study (T. Y. Lin, Caltrans, 2005). This joint traffic study with City of Corning, Tehama County Transportation Commission, and Caltrans was conducted during the summer of 2005 in the Corning area. The purpose of this study was to identify the portion of traffic using South Avenue as a connection between SR 99 and I-5.


These studies identified the following:

- About 50% of the traffic immediately north of South Avenue on SR 99 is making a long distance trip (For example, Chico, CA to Redding, CA or Sacramento, CA to Portland, OR).
- About 15% of the traffic using South Avenue is traveling between SR 99 and I-5.

## Segment Fact Sheets

Segment Fact Sheets are provided for each segment. **FIGURE 3** displays the six segments on the route The SR 99 Segment Fact Sheets that follow provide detailed information for each segment on SR 99 (and SR 36). These fact sheets represent SR 99 under existing conditions. Definitions for route designations included in the Segment Fact Sheets are found in **APPENDIX D: Federal and State Designations**. Each fact sheet contains two pages:

- Page 1 consists of facts about the segment: *General Information, System Designations, and Current Highway Information*
- Page 2 contains descriptions of the segment: *Segment Description, Significant Land Uses, General Issues, and Segment Projects/Improvements*

**There are Fact Sheets for each of the 6 segments analyzed.**

# State Route 99 Segments


Figure 3

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# State Route 99 Segment Fact Sheet

## *General Information*

**County:** Tehama **Route:** 99 **Segment #:** 1NB-099TEH **Length Miles:** 4.5

**Location** Butte/Tehama County Line to South Avenue-NB **Directional:** Yes. NB.

**PM Limit** 0.00 / 4.49

## *System Designations*

**Functional Classification:** Principal Arterial **Present Facility:** Two-lane conventional/expressway

**Other Classifications:** National Highway System, Interregional Road System, Surface Transportation Assistance Act (Terminal Access Route), High Emphasis Route, Focus Route, Freeway and Expressway System, and Blue Star Memorial Highway

**Bicycle Status:** Allowed

## *Current Highway Information*

| Year | Average Annual Daily Traffic | Peak Hour | Percent Time Spent Following | Average Travel Speed (mph) | LOS |
|---|---|---|---|---|---|
| 2007 | 6700 | 750 | 58.2 | 58.8 | C |

Directional segment-AADT, Peak hour, and LOS are for one direction of travel and may not be for the same hour for NB and SB in this segment.

**Peak Hour Factor:** 0.88

**Number of Lanes:** 2

**Terrain:** Level

**Grade:** N/A

**Percent Trucks:** 8%

**Percent RVs:** 1%

**K factor:** 0.10

**Access Points:** 0.5/mile

**Directional Split:** 56% (North pm)

**Passing Lane(s):** Yes. 0.6/2.4 NB

**Average Lane Width:** 12 ft

**Average Shoulder Width (left/right):** 8 ft/8 ft

**Posted Speed:** 65 mph

**Percent No Passing:** 61

**Median Type:** Undivided roadway with single traffic stripe

***Parallel or Connecting Routes*** I-5, South Avenue

## State Route 99 Segment Fact Sheet

### *Segment Description*

This route segment begins at the Butte/Tehama County line and ends at South Avenue. Travel on this section of the corridor is a combination of local/regional and interregional trips. Currently, the segment consists of a small section of conventional highway (0.0/0.2) and the remaining portion of the segment is a paved two-lane expressway with twelve-foot lanes, and eight-foot shoulders. There is a northbound passing lane (0.60/2.4) and a southbound passing lane (4.49/3.0). At PM 3.67, there is intermittent "mini-site" weigh station. Three structures exist in this segment. The median is an undivided roadway with a striped centerline.

### *Significant Land Uses*

The majority of land in this segment is designated for agricultural uses. These may include grazing; dairies; animal husbandry; production of tree, row, and field crops; nurseries and greenhouses; uses integrally related to the processing and sales of agricultural products, and residential uses in association with agriculture generally follow alongside the highway. Another use in this segment is resource preservation with the Vina Plains Preserve. This preserve is east of SR 99 across from Haille Road. The preserve protects plants and animals and also functions as a working cattle ranch. The minimum parcel size in agricultural areas is usually 20 to 40 gross acres. Typically, there is one residential dwelling allowed per legal parcel. To the east of SR 99 near the intersection with South Avenue, there is a California Department of Forestry and Fire Protection station called Vina Helitack. This helicopter station responds to all types of incidents in Northern California. In the future, much of the land use is expected to remain classified as agriculture.

### *General Issues*

This segment terminates at South Avenue which is utilized by interregional traffic to access I-5. The Sacramento River is to the west of SR 99 and parallel to the highway. Some bridges' shoulders do not meet the current standard for shoulder width. Current highway design standards recommend 10-foot shoulders.

### *Segment Projects/Improvements*

| Name | Type | Location | Year | Program | Cost | Sponsor |
|---|---|---|---|---|---|---|
| ***Completed Projects*** | | | | | | |
| **Butte/Tehama County Line to just north of South Avenue** | **Roadway Rehabilitation** | **TEH 99 0.0/4.7** | **2008** | **SHOPP** | **$2,000,000** | **Caltrans** |
| Seal coat | | | | | | |
| **Butte/Tehama County Line to just north of South Avenue** | **Mobility Improvement** | **TEH 99 0.0/4.7** | **1998** | **STIP** | **$1,275,000** | **Caltrans/ Tehama County Transportation Commission** |
| Construct passing lanes | | | | | | |
| ***In-Progress Projects: No projects at this time.*** | | | | | | |

# State Route 99 Segment Fact Sheet

## *General Information*

**County:** Tehama **Route:** 99 **Segment #:** 1SB-099TEH **Length Miles:** 4.5

**Location** South Avenue to Butte/Tehama County Line-SB **Directional:** Yes. SB.

**PM Limit** 4.49 / 0.00

## *System Designations*

**Functional Classification:** Principal Arterial **Present Facility:** Two-lane conventional/expressway

**Other Classifications:** National Highway System, Interregional Road System, Surface Transportation Assistance Act (Terminal Access Route), Focus Route, Freeway and Expressway System, and Blue Star Memorial Highway

**Bicycle Status:** Allowed

## *Current Highway Information*

| Year | Average Annual Daily Traffic | Peak Hour | Percent Time Spent Following | Average Travel Speed (mph) | LOS |
|---|---|---|---|---|---|
| 2007 | 5300 | 600 | 51.7 | 58.8 | C |

Directional segment-AADT, Peak hour, and LOS are for one direction of travel and may not be for the same hour for NB and SB in this segment.

**Peak Hour Factor:** 0.88

**Number of Lanes:** 2

**Terrain:** Level

**Grade:** N/A

**Percent Trucks:** 8%

**Percent RVs:** 1%

**K factor:** 0.10

**Access Points:** 0.5/mile

**Directional Split:** 44% (South)

**Passing Lane(s):** Yes. 4.49/3.0 SB

**Average Lane Width:** 12 ft

**Average Shoulder Width (left/right):** 8 ft/8 ft

**Posted Speed:** 65 mph

**Percent No Passing:** 61

**Median Type:** Undivided roadway with single traffic stripe

***Parallel or Connecting Routes*** I-5, South Avenue

## State Route 99 Segment Fact Sheet

### *Segment Description*

This route segment begins at the Butte/Tehama County line and ends at South Avenue. Travel on this section of the corridor is a combination of local/regional and interregional trips. Currently, the segment consists of a small section of conventional highway (0.0/0.2) and the remaining portion of the segment is a paved two-lane expressway with twelve-foot lanes, and eight-foot shoulders. There is a northbound passing lane (0.60/2.4) and a southbound passing lane (4.49/3.0). At PM 3.67, there is intermittent "mini-site" weigh station. Three structures exist in this segment. The median is an undivided roadway with a striped centerline.

### *Significant Land Uses*

The majority of land in this segment is designated for agricultural uses. These may include grazing; dairies; animal husbandry; production of tree, row, and field crops; nurseries and greenhouses; uses integrally related to the processing and sales of agricultural products, and residential uses in association with general fallow agriculture. Another use in this segment is resource preservation with the Vina Plains Preserve. This preserve is east of SR 99 across from Haille Road. The preserve protects plants and animals and also functions as a working cattle ranch. The minimum parcel size in agricultural areas is usually 20 to 40 gross acres. Typically, there is one residential dwelling allowed per legal parcel. To the east of SR 99 near the intersection with South Avenue, there is a California Department of Forestry and Fire Protection station called Vina Helitack. This helicopter station responds to all types of incidents in Northern California. In the future, much of the land use is expected to remain classified as agriculture.

### *General Issues*

This segment begins at South Avenue which is utilized by interregional traffic to access I-5. The Sacramento River is to the west of SR 99 and parallel to the highway. Some bridges' shoulders do not meet the current standard for shoulder width. Current highway design standards recommend 10-foot shoulders.

### *Segment Projects/Improvements*

| Name | Type | Location | Year | Program | Cost | Sponsor |
|---|---|---|---|---|---|---|
| ***Completed Projects*** | | | | | | |
| **Butte/Tehama County Line to just north of South Avenue** | **Roadway Rehabilitation** | **TEH 99 4.7/0.0** | **2008** | **SHOPP** | **$2,000,000** | **Caltrans** |
| Seal coat | | | | | | |
| **Butte/Tehama County Line to just north of South Avenue** | **Mobility Improvement** | **TEH 99 4.7/0.0** | **1998** | **STIP** | **$1,275,000** | **Caltrans/ Tehama County Transportation Commission** |
| Construct passing lanes | | | | | | |
| ***In-Progress Projects: No projects at this time.*** | | | | | | |

# State Route 99 Segment Fact Sheet

## *General Information*

**County:** Tehama **Route:** 99 **Segment #:** 2-099TEH **Length Miles:** 6.7

**Location** South Avenue to Sherman Street **Directional:** No

**PM Limit** 4.49 / 11.18

## *System Designations*

**Functional Classification:** Principal Arterial **Present Facility:** Two-lane conventional highway

**Other Classifications:** National Highway System, Interregional Road System, Surface Transportation Assistance Act (Terminal Access Route), Focus Route, Freeway and Expressway System, and Blue Star Memorial Highway

**Bicycle Status:** Allowed

## *Current Highway Information*

| Year | Average Annual Daily Traffic | Peak Hour | Percent Time Spent Following | Average Travel Speed (mph) | LOS |
|---|---|---|---|---|---|
| 2007 | 7200 | 820 | 64.5 | 59.6 | C |
| | | | | | |

**Peak Hour Factor:** 0.88

**Number of Lanes:** 2

**Terrain:** Level

**Grade:** N/A

**Percent Trucks:** 12%

**Percent RVs:** 2%

**K factor:** 0.9

**Access Points:** 2.0/mile

**Directional Split:** 60% (North pm)

**Passing Lane(s):** No

**Average Lane Width:** 12 ft

**Average Shoulder Width (left/right):** 8 ft/8 ft

**Posted Speed:** 65 mph

**Percent No Passing:** 33

**Median Type:** Undivided roadway with single traffic stripe

***Parallel or Connecting Routes*** I-5, South Avenue, Hall Road, and Tehama and Vina Road

## State Route 99 Segment Fact Sheet

### *Segment Description*

This route segment begins at South Avenue and ends at Sherman Street near the community of Los Molinos. Travel on this section of the corridor is a combination of local/regional and interregional trips. Currently, the segment consists of a paved two-lane conventional highway with twelve-foot lanes and eight-foot shoulders. Five structures exist in this segment. The median is an undivided roadway with a striped centerline.

### *Significant Land Uses*

The majority of land in this segment is designated for agricultural uses. These may include grazing; dairies; animal husbandry; production of tree, row, and field crops; nurseries and greenhouses; uses integrally related to the processing and sales of agricultural products, and residential uses in association with agriculture. The community of Vina is off of Tehama and Vina Road and contains single-family residential homes, a restaurant, public school, and a vineyard. The minimum parcel size in agricultural areas is usually 20 to 40 gross acres. Typically, there is one residential dwelling allowed per legal parcel. In the future, much of the land use is expected to remain classified as agriculture.

### *General Issues*

This segment begins at South Avenue which is utilized by interregional traffic to access I-5. Mature tree growth along portions of the highway limits vehicle recovery area. Passing presents a challenge. The railroad runs in close proximity along the westside of the highway and is parallel to the highway. Additionally, when the railroad travels through the communities, train arms block off all frontage roads. This can cause traffic to backup onto the highway. The Sacramento River is also to the west of SR 99 and parallel to highway. Some bridges' shoulders do not meet the current standard for shoulder width. Current highway design standards recommend 10-foot shoulders.

### *Segment Projects/Improvements*

| Name | Type | Location | Year | Program | Cost | Sponsor |
|---|---|---|---|---|---|---|
| ***Completed Projects*** | | | | | | |
| **Toomes Creek Bridge (08 0005)** | **Roadway Rehabilitation** | **TEH 99 0.0/4.7** | **2008** | **SHOPP** | **$2,000,000** | **Caltrans** |
| Rehabilitate bridge (scour) | | | | | | |
| **Deer Creek Bridge (08 0164)** | **Mobility Improvement** | **TEH 99 0.0/4.7** | **1998** | **STIP** | **$1,275,000** | **Caltrans/ Tehama County Transportation Commission** |
| Rehabilitate bridge (scour) | | | | | | |
| ***In-Progress Projects*** | | | | | | |
| **Just north of South Avenue Junction to 0.5 mile south of Toomes Creek Bridge** | **Roadway Rehabilitation** | **TEH 99 4.7/8.0** | **2009** | **American Recovery Reinvest ment Act** | **$2,100,000[1]** | **Caltrans** |
| Rehabilitate pavement | | | | | | |
| *1This project is combined with two other locations on I-5 and SR 32.* | | | | | | |

# State Route 99 Segment Fact Sheet

## *General Information*

**County:** Tehama **Route:** 99 **Segment #:** 3-099TEH **Length Miles:** 1.4

**Location** Sherman Street to Tehama and Vina Road (Los Molinos) **Directional:** No

**PM Limit** 11.18 / 12.53

## *System Designations*

**Functional Classification:** Principal Arterial **Present Facility:** Two-lane conventional highway

**Other Classifications:** National Highway System, Interregional Road System, Surface Transportation Assistance Act (Terminal Access Route), Focus Route, Freeway and Expressway System, and Blue Star Memorial Highway

**Bicycle Status:** Allowed

## *Current Highway Information*

| Year | Average Annual Daily Traffic | Peak Hour | Percent Time Spent Following | Average Travel Speed (mph) | LOS |
|---|---|---|---|---|---|
| 2007 | 10900 | 950 | 78.3 | 25.6 | E |
| | | | | | |

**Peak Hour Factor:** 0.88

**Number of Lanes:** 2

**Terrain:** Level

**Grade:** N/A

**Percent Trucks:** 11%

**Percent RVs:** 2%

**K factor:** 0.9

**Access Points:** 28.0/mile

**Directional Split:** 60% (North pm)

**Passing Lane(s):** No

**Average Lane Width:** 12 ft

**Average Shoulder Width (left/right):** 8 ft/8 ft

**Posted Speed:** 65-50-35-40-50 mph

**Percent No Passing:** 100

**Median Type:** Two-way left turn lane

***Parallel or Connecting Routes*** I-5, Tehama and Vina Road, Sherwood Boulevard, Sycamore/Gyle Road, and Aramayo Way

## State Route 99 Segment Fact Sheet

### *Segment Description*

This route segment begins at Sherman Road and ends at Tehama and Vina Road. The highway passes through and serves as a main street for the community of Los Molinos. Travel on this section of the corridor is a combination of local/regional and interregional trips. Currently, this segment consists of a paved two-lane conventional highway with twelve-foot lanes and eight-foot shoulders. No structures exist in this segment. Most of the median is a two-way left turn lane (11.18/12.3), and the rest (12.3/12.53) is an undivided roadway with a striped centerline.

### *Significant Land Uses*

This segment passes through the central portion of the community of Los Molinos. This "main street" area has general commercial consisting of retail sales and services, gas stations, grocery stores, hotels, restaurants, banks, library, post office, and offices. Public facilities consist of the two schools in the community. There are rural small residential lots, single-family dwellings, and mutli-family housing surrounding the highway. The future land uses are expected to be rural residential.

### *General Issues*

Speed limits are lowered in the community of Los Molinos. Numerous unrestricted access points exist. Access points are both controlled and uncontrolled and can lead to delay and vehicle/pedestrian conflicts. There is heavy pedestrian and bicyclist activity in the community. Business parking and store fronts are right next to the highway, and drivers often will back out into the highway. There are no passing opportunities in this segment. There are left and right turning vehicles causing delay. The railroad runs in close proximity along the westside of the highway and is parallel to the highway. Additionally, when the railroad comes through the communities, train arms block off all frontage roads. This can cause traffic to backup onto the highway. The Sacramento River is to the west of SR 99 and parallel to the highway. Drainage is an issue throughout the community of Los Molinos.

### *Segment Projects/Improvements*

| Name | Type | Location | Year | Program | Cost | Sponsor |
|---|---|---|---|---|---|---|
| ***Completed Projects: No projects at this time.*** | | | | | | |
| | | | | | | |
| ***In-Progress Projects*** | | | | | | |
| **Los Molinos** | **SR 99 Bond Program, State Transportation Improvement Program, and Minor B** | **TEH 99 4.7/8.0** | **2009** | **Bond Program/ STIP/ Minor B** | **$4,800,000** | **Caltrans, Tehama County Transportation Commission** |
| Install sidewalks, curbs, gutters, street lighting, drainage, and a traffic signal at Aramayo Way; Add a thin blanket overlay and bicycle lanes | | | | | | |

# State Route 99 Segment Fact Sheet

## *General Information*

**County:** Tehama **Route:** 99 **Segment #:** 4-099TEH **Length Miles:** 7.0

**Location** Tehama and Vina Road to Kauffman Avenue **Directional:** No

**PM Limit** 12.53 / 19.52

## *System Designations*

**Functional Classification:** Principal Arterial **Present Facility:** Two-lane conventional highway

**Other Classifications:** National Highway System, Interregional Road System, Surface Transportation Assistance Act (Terminal Access Route), Focus Route, Freeway and Expressway System, and Blue Star Memorial Highway

**Bicycle Status:** Allowed

## *Current Highway Information*

| Year | Average Annual Daily Traffic | Peak Hour | Percent Time Spent Following | Average Travel Speed (mph) | LOS |
|---|---|---|---|---|---|
| 2007 | 8500 | 830 | 69.2 | 42.3 | D |

**Peak Hour Factor:** 0.88

**Number of Lanes:** 2

**Terrain:** Level

**Grade:** N/A

**Percent Trucks:** 14%

**Percent RVs:** 2%

**K factor:** 0.9

**Access Points:** 11.0/mile

**Directional Split:** 60% (North pm)

**Passing Lane(s):** No

**Average Lane Width:** 12 ft

**Average Shoulder Width (left/right):** 8 ft/8 ft

**Posted Speed:** 40-50-55 mph

**Percent No Passing:** 89

**Median Type:** Undivided roadway with single traffic stripe

***Parallel or Connecting Routes*** I-5, Aramayo Way, San Benito Road (County Road A-8), Foothill Road, and Shasta Boulevard

## State Route 99 Segment Fact Sheet

### *Segment Description*

This route segment begins at Tehama and Vina Road and ends at Kauffman Avenue. The community of Los Molinos is in this segment. Travel on this section of the corridor is a combination of local/regional and interregional trips. Currently, this segment consists of a paved two-lane conventional highway with twelve-foot lanes and eight-foot shoulders. Seven structures exist in this segment. The median is an undivided roadway with a striped centerline.

### *Significant Land Uses*

This segment passes through the northern end of the community of Los Molinos. This segment passes through a more sparsely developed portion of community, but there is some general commercial with restaurants, gas stations, and grocery stores. Local streets connecting to the highway contain single family homes. The segment also contains valley floor agriculture used primarily as crop land. Fruit stands are located near the highway right next to the right of way. Lassen View Elementary School is near 68th Avenue.

### *General Issues*

Bridge shoulders do not meet the current standard for shoulder width. The Sacramento River is to the west of SR 99 and parallel to the highway. During the winter months, flooding occurs within this segment, particularly at Antelope Creek. The flooding that occurs also affects county roads that otherwise could be used as a detour. Deer and other wildlife often cross the highway. Mature tree growth along the highway limits vehicle recovery area. Agricultural land uses and equipment along the highway affects the highway's operations. Access points are uncontrolled on the highway and can lead to delay in travel time. Passing opportunities are reduced due to traffic volumes and driveways.

### *Segment Projects/Improvements*

| Name | Type | Location | Year | Program | Cost | Sponsor |
|---|---|---|---|---|---|---|
| ***Completed Projects*** | | | | | | |
| **Dye Creek Bridge (08 0162)** | **Bridge Rehabilitation** | **TEH 99 16.4/16.8** | **2005** | **SHOPP** | **$4,900,000** | **Caltrans** |
| Replace bridge | | | | | | |
| **Antelope Creek Bridge (08 0161)** | **Bridge Scour Mitigation** | **TEH 99 17.4/18.4** | **2003** | **SHOPP** | **$3,440,000** | **Caltrans** |
| Replace bridge | | | | | | |
| ***In-Progress Projects*** | | | | | | |
| **Sunset Canal (08 0010) and Craig Creek (08 0014)** | **Bridge Scour Mitigation** | **TEH 99 15.4/15.7 20.9/21.3** | **2010** | **SHOPP** | **$5,849,000** | **Caltrans** |
| Rehabilitate bridge (scour) | | | | | | |
| **North Fork Mill Creek Bridge (08 0009)** | **Bridge Scour Mitigation** | **TEH 99 13.9/14.3** | **2012** | **SHOPP** | **$4,970,000** | **Caltrans** |
| Rehabilitate bridge (scour) | | | | | | |

# State Route 99 Segment Fact Sheet

## *General Information*

**County:** Tehama **Route:** 99 **Segment #:** 5-099TEH **Length Miles:** 5.4

**Location** Kauffman Avenue to Junction SR 36 (Red Bluff East) **Directional:** No

**PM Limit** 19.52 / 24.94

## *System Designations*

**Functional Classification:** Principal Arterial **Present Facility:** Two-lane conventional highway

**Other Classifications:** National Highway System, Interregional Road System, Surface Transportation Assistance Act (Terminal Access Route), Focus Route, Freeway and Expressway System, and Blue Star Memorial Highway

**Bicycle Status:** Allowed

## *Current Highway Information*

| Year | Average Annual Daily Traffic | Peak Hour | Percent Time Spent Following | Average Travel Speed (mph) | LOS |
|---|---|---|---|---|---|
| 2007 | 9800 | 960 | 70.7 | 48.1 | D |
| | | | | | |

**Peak Hour Factor:** 0.88

**Number of Lanes:** 2

**Terrain:** Level

**Grade:** N/A

**Percent Trucks:** 12%

**Percent RVs:** 1%

**K factor:** 0.9

**Access Points:** 7.0/mile

**Directional Split:** 56% (South pm)

**Passing Lane(s):** No

**Average Lane Width:** 12 ft

**Average Shoulder Width (left/right):** 8 ft/8 ft

**Posted Speed:** 55 mph

**Percent No Passing:** 44

**Median Type:** Two-way left turn lane; Undivided roadway with single traffic stripe

***Parallel or Connecting Routes*** I-5, San Benito Road (County Road A-8), Foothill Road, Tyler Road, Craig Avenue, Hogsback, and SR 36.

## State Route 99 Segment Fact Sheet

### *Segment Description*

This route segment begins at Kauffman Avenue and ends at Junction SR 36 (Red Bluff East). The community of Dairyville is in this segment. Travel on this section of the corridor is a combination of local/regional and interregional trips. Currently, this segment consists of a paved two-lane conventional highway with twelve-foot lanes and eight-foot shoulders. Four structures exist in this segment. Most of the median is an undivided roadway with a striped centerline. (19.86/24.94), and the rest has a two-way left turn lane (19.52/19.86).

### *Significant Land Uses*

This segment contains mostly valley floor agriculture with crop production. Fruit stands are located near the highway right next to the right of way. There is a small residential section near Oklahoma Avenue. Additionally, there are some rural small lots off of Patterson Road.

### *General Issues*

Bridge shoulders do not meet the current standard for shoulder width. This includes the three Salt Creek Bridges. Additionally, at these bridges, children walk and ride bikes on narrow shoulders to access the school in the segment to the north in Red Bluff. During the winter months, flooding occurs within this segment, particularly at the Salt Creek Bridges. This flooding also affects county roads that otherwise could be used as a detour. The Sacramento River is to the west of SR 99 and parallel to the highway. Deer and other wildlife often cross the highway. There are three posted curve warning signs from PM 22.8/24.8. One sign has a posted curve warning of 55 mph. Tree growth along the highway limits vehicle recovery area. Agricultural land uses and equipment along the highway affects the highway's operations. Access points are uncontrolled on the highway and can lead to delay in travel time.

### *Segment Projects/Improvements*

| Name | Type | Location | Year | Program | Cost | Sponsor |
|---|---|---|---|---|---|---|
| ***Completed Projects*** | | | | | | |
| **Bulter Slough (08 0013)** | **Bridge Rehabilitation** | **TEH 99 19.4/19.7** | **1999** | **SHOPP** | **$1,300,000** | **Caltrans** |
| Widen bridge | | | | | | |
| ***In-Progress Projects*** | | | | | | |
| **Sunset Canal (08 0010) and Craig Creek (08 0014)** | **Bridge Scour Mitigation** | **TEH 99 15.4/15.7 20.9/21.3** | **2010** | **SHOPP** | **$5,849,000** | **Caltrans** |
| Rehabilitate bridge (scour) | | | | | | |

# State Route 36 Segment Fact Sheet

## *General Information*

**County:** Tehama **Route:** 36 **Segment #:** 6-036TEH **Length Miles:** 2.2

**Location** Junction SR 36 (Red Bluff East) to I-5 **Directional:** No

**PM Limit** 44.00 / 41.85

## *System Designations*

**Functional Classification:** Principal Arterial **Present Facility:** Four-lane conventional highway

**Other Classifications:** National Highway System, Interregional Road System, Surface Transportation Assistance Act (Terminal Access Route), Focus Route, Freeway and Expressway System, and Blue Star Memorial Highway

**Bicycle Status:** Allowed

## *Current Highway Information*

| Year | Average Annual Daily Traffic | Peak Hour | Volume/ Capacity | LOS |
|---|---|---|---|---|
| 2007 | 16700 | 1700 | .41 | B |
| | | | | |

**Peak Hour Factor:** 0.88

**Number of Lanes:** 4

**Terrain:** Level

**Grade:** N/A

**Percent Trucks:** 7%

**Percent RVs:** 3%

**K factor:** 0.9

**Access Points:** 23.0/mile

**Directional Split:** 53% (East pm)

**Passing Lane(s):** No

**Average Lane Width:** 12 ft

**Average Shoulder Width (left/right):** 8 ft/8 ft

**Posted Speed:** 40-45-50 mph

**Percent No Passing:** N/A

**Median Type:** Two-way left-turn lane; paved median.

***Parallel or Connecting Routes*** I-5, SR 36, Hoy Road, St. Mary's Avenue, Belle Mill Road, and Sale Lane.

## State Route 36 Segment Fact Sheet

### *Segment Description*

This route segment of SR 36 is included because it is essential to the connectivity of SR 99 to I-5. This route segment begins at Junction SR 36 (Red Bluff East) and ends at Junction I-5. The segment is inside the Red Bluff City limits. Another name for this segment is Antelope Boulevard. Travel on this section of the corridor is a combination of local/regional and interregional trips. Currently, this segment consists of a paved four-lane conventional highway with twelve-foot lanes and eight-foot shoulders. Four structures exist in this segment. Three signals exist in this segment at Sale Lane (42.18), Chestnut Avenue/Colony Road (42.79), and Jct SR 36/I-5 NB on-ramp and SB off-ramp (41.92). Most of the median has a two-way left-turn lane (44.00/42.16) and a paved median (42.16/41.85).

### *Significant Land Uses*

This segment passes through many different types of land uses. There is commercial and general commercial with motels/hotels, gasoline stations, food establishments, a mixture of agricultural (logging/hay), and retail stores. This commercial use gets more concentrated near the junction with I-5. There is a school, California Department of Corrections, California Department of Fire, the Tehama District Fairgrounds, and access to Red Bluff Diversion Dam and Lassen National Park. On adjacent local road is suburban and rural residential lots.

### *General Issues*

Multiple access roads and locations are both controlled and uncontrolled and can cause delay. Additionally, signalized intersections cause delay.

### *Segment Projects/Improvements*

| Name | Type | Location | Year | Program | Cost | Sponsor |
|---|---|---|---|---|---|---|
| ***Completed Projects*** | | | | | | |
| **Red Bluff Rehabilitation** | **Roadway Rehabilitation** | **TEH 36 L39.7/44.0** | **2000** | **SHOPP** | **$8,623,000** | **Caltrans** |
| Rehabilitate roadway in Red Bluff from Walton Street to junction of SR 99 | | | | | | |
| ***In-Progress Projects*** | | | | | | |
| **Flashing Beacons** | **Minor B** | **TEH 36 43.3/43.8** | **2009** | **SHOPP** | **$200,000** | **Caltrans** |
| Install flashing beacons with timer at Antelope School | | | | | | |

# State Route 99
# Transportation Concept Report

## *Corridor Traffic Assessment-Future Conditions*

## Introduction

This section describes the traffic forecasting and future LOS for SR 99, alternative visions for the future of SR 99 and considers some of the potential advantages and disadvantages of each option.

**State Route 99 has had three main alternative visions in the last 20 years:**

1. **Existing Alignment**
2. **South Avenue Alignment**
3. **New Alignment to I-5**

## Traffic Forecasting and LOS

The Tehama County Transportation Commission (TCTC) does not have a regional travel demand model. Without a model, Caltrans worked with the agency to perform a qualitative assessment to develop the traffic forecasts in this document. A number of factors were considered in this assessment: historical traffic and truck volumes, population and demographics, Census Data, General Plans, Regional Transportation Plans, 2006 O & D Study, South Avenue Traffic Study, and current and proposed local development projects. Additionally, an environmental analysis can be found in **APPENDIX E: Preliminary Environmental Assessment.**

**TABLE 16** provides a summary of Traffic Forecasts and LOS on SR 99 in District 2 out to 2027. During the next 20 years, segments along SR 99 within District 2 that are projected to operate below the C/D threshold are shaded with diagonal stripes.

Typically, when a segment's LOS falls below the C/D threshold, potential capacity projects are identified to maintain/improve LOS. The challenge with SR 99 is that there are significant constraints along the existing alignment (orchards and farmland, utilities, buildings, floodplains, and environmentally sensitive areas) that may make expansion more difficult and expensive. Additionally, there is currently little agreement as to which alignment for SR 99 should be the focus of expansion/investment in the future.

**All five segments (25 miles) of SR 99 in District 2 will fall below LOS C/D by 2027.**

**EXISTING SR 99. The current alignment presents challenges to expand.**

## TABLE 16
## SR 99 Future Traffic and LOS for Tehama County

| Segment | County | Route | Postmile | Segment Description | 2027 AADT | 2027 Peak Hour | 2027 LOS AADT |
|---|---|---|---|---|---|---|---|
| 1NB | Tehama | 99 | 0.00/4.49 | Butte/Tehama County Line to South Avenue-NB | 11050 | 1100 | D |
| | | | 0.60/2.4 | Passing lane-NB | | | |
| 1SB | Tehama | 99 | 4.49/0.00 | Butte/Tehama County Line to South Avenue-SB | 8700 | 900 | D |
| | | | 4.49/3.0 | Passing lane-SB | | | |
| 2 | Tehama | 99 | 4.49/11.18 | South Avenue to Sherman Street | 9150 | 1000 | D |
| 3 | Tehama | 99 | 11.18/12.53 | Sherman Street to Tehama Vina Road | 13000 | 1150 | E |
| 4 | Tehama | 99 | 12.53/19.52 | Tehama Vina Road to Kauffman Avenue | 10500 | 1050 | D |
| 5 | Tehama | 99 | 19.52/24.94 | Kauffman Avenue to Jct SR 36 (Red Bluff East) | 12700 | 1150 | D |
| 6 | Tehama | 36 | 41.85/44.00 | Jct SR 36 (Red Bluff East) to I-5 | 24750 | 2250 | C |

Below C/D Threshold

NB and SB are analyzed in a separate direction due to passing lanes.

Detailed traffic and LOS information is provided in the Segment Fact Sheets.

Source: Caltrans, District 2, Office of System Planning

**Definitions:**

| | |
|---|---|
| Segment | Number system used to identify sections of freeway for analysis. There are 6 segments running from south to north. One segment has directional northbound (NB) and southbound (SB) analysis. |
| County | Jurisdiction route is in-Tehama County. |
| Route | State Route 99 |
| Postmile | The mileage measured from the southern county line, or from the beginning of a route. Each postmile along a route in a county is a unique location in the state highway system. |
| NB/SB | Northbound/Southbound |
| Segment Description | Provides the starting and ending locations for the segment. Usually a county line, structure, or change in number of travel lanes. |
| AADT | Annual Average Daily Traffic is the total traffic volume for the year divided by 365 days. |
| LOS AADT | Level of Service Annual Average Daily Traffic. This term is used to describe the quality of traffic flow during the peak hour of a typical day on the facility. |

## Background

There is no commonly held vision for the future of SR 99 in Tehama County. A common vision for SR 99 is essential if the state and local agencies are to adequately plan and prepare transportation improvement projects.

During the 1960s, SR 99 was declared a freeway from the Butte County Line through Los Molinos to I-5. Freeway agreements were signed by Tehama County and the State of California and right of way acquired. The freeway designation was to require complete realignment and a new river crossing for SR 99. No further actions were taken, and in the late 1970's the California Transportation Commission rescinded that adoption. Shortly afterward, the right of way was sold. Over the next few decades a number of alternatives were proposed by state and local agencies, but no consensus was reached as to a preferred new alignment concept. **TABLE 17** provides a summary of the various studies that have been completed on the future of SR 99 over the years.

Both the completed studies of SR 99 and the current public outreach have identified three general concepts for the future of the route. Additional information regarding the public outreach can be found in **APPENDIX F: Public Outreach and Tribal Fact Sheets.** Outreach and These are the three basic concepts that will be described in this report:

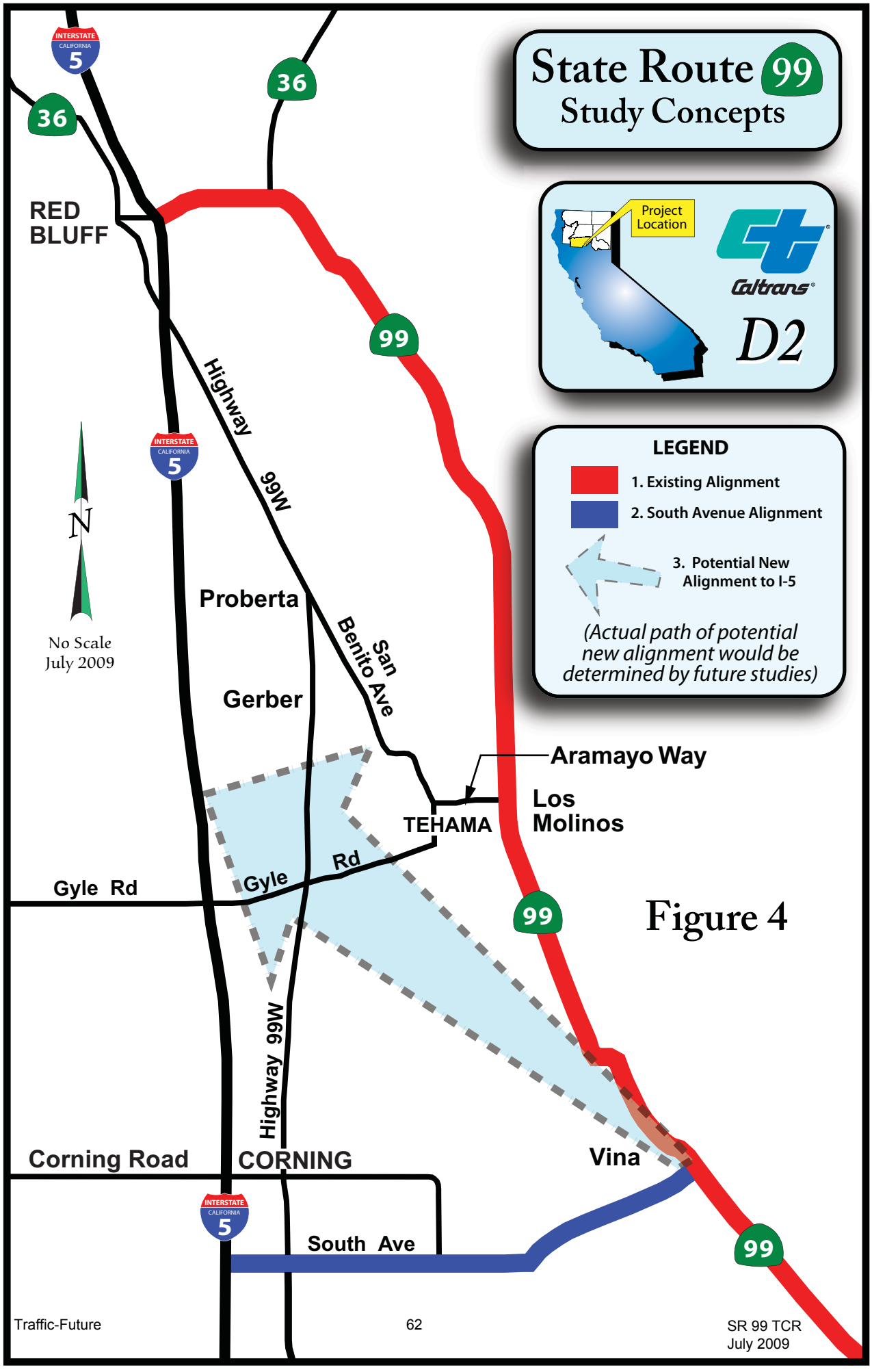
1. Existing Alignment
2. South Avenue Alignment
3. New Alignment to I-5

These three alternative concepts are displayed in **Figure 4.**

The analysis in this report shows that SR 99 in District 2 must be expanded to 4 lanes within the next 50 years to accommodate forecast traffic volumes. This finding is consistent with other state planning documents (including the 1998 Interregional Strategic Plan (ITSP) that calls for SR 99 to be upgraded to 4 (or more) lanes). The facility concept for SR 99 in District 2 in Butte County (Caltrans District 3) is a 4-lane expressway. For these reasons, this report evaluates all 3 study options as a 4-lane facility at Year 50. A concept alternative that calls for "no improvements" is not evaluated because it would not meet operational and safety standards.

**SR 99 VISION. What does SR 99's future hold . . .**

**SR 99 in District 3. In Chico, SR 99 is a freeway with off ramps.**


State Route 99
Study Concepts
Project Location
Caltrans
D2
LEGEND
1. Existing Alignment
2. South Avenue Alignment
3. Potential New Alignment to I-5
(Actual path of potential new alignment would be determined by future studies)
RED BLUFF
36
36
99
99
99
INTERSTATE CALIFORNIA 5
INTERSTATE CALIFORNIA 5
INTERSTATE CALIFORNIA 5
Highway 99W
Highway 99W
N
No Scale
July 2009
Proberta
Gerber
San Benito Ave
Aramayo Way
Los Molinos
TEHAMA
Gyle Rd
Gyle Rd
Gyle Rd
Corning Road
CORNING
Vina
South Ave
Figure 4
Traffic-Future
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SR 99 TCR
July 2009

## Past Studies

**TABLE 17**
**Studies Regarding the Future of SR 99**

| Study | Study Summary/Analysis |
|---|---|
| *Special Study Concept for Future Improvements* (Caltrans, June 1991) | This study discussed the history of SR 99 in Butte and Tehama Counties. The report indicates that passing lanes along the existing alignment be pursued in Tehama County, since they would provide long term benefit. Adopting a freeway corridor from Chico to Red Bluff would be difficult without preserving right of way in both counties. |
| *Route 99 Concept Report* (Caltrans, July 1991) | This report discusses the rescinded freeway adoption and selling of right of way. The need for four-lanes to accommodate projected traffic is evident, but the type and location of the needed facility is open for discussion. Eight alignment improvement concepts are mentioned in the report, but none of the concepts were selected as the preferred alternative in the report. |
| *Interregional Transportation Strategic Plan* (Caltrans, June 1998) | SR 99 route has been identified as a focus route in this plan and is eligible to receive high priority for upgrade in the next 20-year period. The future concept identified is a four-lane expressway north of Chico. An exact alignment was not identified. |
| *Tehama County Regional Transportation Plan* (Tehama County, November 2006) | Level of Service (LOS) is expected to deteriorate on SR 99 as traffic increases. Improvement options described in this plan include:<br>• Upgrade South Avenue, between Corning and SR 99, to a State Route to improve local and interregional circulation<br>• Extend Gyle Road from Paskenta Road, across the Sacramento River, to State Route 99, south of Los Molinos, resulting in a truck by-pass south of the City of Tehama and improving connectivity to I-5<br>• Possible alternative route from Foothill Boulevard to bypass Los Molinos<br>• Possible alternative route from 99W south (county road) from Red Bluff to south of Los Molinos |
| *Route 70/99 Corridor Business Plan* *(*Caltrans, January 2007) | This plan explains that the corridor has experienced an increase in traffic and is critical for interregional travel. The emphasis of this corridor study is south of Chico, and the only project indentified for the District 2 SR 99 corridor is improving the "main street" section in Los Molinos by adding curb, gutters, and sidewalks. |
| *Tehama County General Plan* (Tehama County Planning Department, March 2009) | This plan contains a roadway master plan with circulation improvements. A new parallel route to SR 99 is described in the plan. |
| *State Route 99 Transportation Concept Report* (Caltrans, Draft May 2009) | At a public workshop for the SR 99 TCR (this report), three basic options were envisioned by the public for SR 99 in Northern Tehama County:<br>• Existing alignment (keep the same or expand)<br>• South Avenue connection<br>• New alignment to I-5 |

Source: California Department of Transportation, Office of System Planning

## Assumptions

Some basic assumptions were made in order to compare and analyze the three concepts:

1. Traffic diversion information for the alternative alignments was analyzed using information from the Origin and Destination studies.
2. All interregional traffic will shift to selected alignment. For instance, if the concept chosen is the new alignment concept, 100% of traffic (both passenger cars and trucks) that was interregional on SR 99 and South Avenue are opting for the new alignment.
3. In order to describe the type of facility and improvements that are needed, estimates are based on the LOS C/D standard.
4. At Year 50, the 3 concepts would all be 4 lanes and meet expressway standards.

## Relative Cost

Cost often becomes the most significant issue to discuss when analyzing a transportation facility. In order to understand the differences between each concept, relative costs were developed and are compared in **TABLE 18**.

**Cost Categories:**
**L=Low**
**M=Medium**
**H=High**
**VH=Very High**

**TABLE 18**
**Relative Cost Comparisons of Three Alternative Alignment Concepts**

| Alternative Concepts | Cost | | |
|---|---|---|---|
| | Opening Day | Year 20 | Year 50 |
| **Existing Alignment** | L | H | VH |
| **South Avenue Alignment** | M | H | VH |
| **New Alignment to I-5** | VH | L | M |

Source: California Department of Transportation, Office of System Planning

To make a comprehensive and equal comparison of the three alternatives, the following three time periods were considered:

- Opening Day. Represents costs that would be incurred before the facility will meet State Highway standards and accommodate the estimated traffic volumes. Some costs are incurred at the outset to accommodate traffic and to meet State Highway standards.
- Year 20. The typical planning horizon used for a TCR. Costs reflect improvements necessary to accommodate traffic at year 20.
- Year 50. All facilities will need 4 lanes to accommodate forecast traffic volumes at this stage. All 50 year costs are based on improving each concept to 4 lanes. This allows direct comparison of what the cost will be to achieve the ultimate concept.

The cost indicators shown represent the magnitude of cost that would be expected to be incurred to meet the need for the year shown. For example, the relative costs shown for Year 20 are the costs expected to be incurred after opening day. Likewise, the relative costs shown at Year 50 are for costs anticipated to be incurred after Year 20.

When the alternative concepts are viewed over a 50-year life cycle, there is no alternative that is clearly superior from a cost perspective.

**Opening Day Costs:**

| | |
|---|---|
| **Existing Alignment:** | **Minimal since existing route is used already** |
| **South Avenue Alignment:** | **Address existing floodplain issues, State Highway standards such as lane widths and shoulder width, upgrade bridges to remove load restrictions, reduce/eliminate private driveway and access points for safety and higher speeds, and traffic control** |
| **New Alignment to I-5:** | **Acquire right of way, environmental impacts/mitigation, new railroad crossing, and build new Sacramento River Bridge crossing for 2-lane facility** |

**Year 20 Costs:**

| | |
|---|---|
| **Existing Alignment:** | **Add passing lanes, major reconstruction to address geometrics, reduce/eliminate private driveway and access points for safety and higher speeds, traffic control, and floodplain issues** |
| **South Avenue Alignment:** | **Acquire additional right of way, add passing lanes, upgrade structures, reduce/eliminate private driveway and access points for safety and higher speeds, and traffic control issues** |
| **New Alignment to I-5:** | **Minimal since the two-lane facility constructed for opening day will be adequate** |

**Year 50 Costs:**

| | |
|---|---|
| **Existing Alignment:** | **Expand to 4 lanes, acquire additional right of way, address proximity to railroad, potential change in profile of entire route to address floodplain issues, reduce/eliminate private driveway and access points for safety and higher speeds, add frontage roads, new bridges at stream crossings for new lanes, traffic control, and address various environmental impacts** |
| **South Avenue Alignment:** | **Expand to 4 lanes, acquire additional right of way, new 4-lane Sacramento River Bridge crossing, remove old bridge, impacts to Woodson Bridge State Recreation Area, traffic control, and address various environmental impacts** |
| **New Alignment to I-5:** | **Build additional 2 lanes to make a total of 4 lanes and widen Sacramento River Bridge to 4 lanes** |

## Concept Fact Sheets

Concept Fact Sheets are provided for each concept. The fact sheets that follow provide detailed information for each concept. These fact sheets represent SR 99 under future conditions. Each fact sheet contains two pages:

- Page 1 consists of the following information: *Description of Concept, Photo, Operational Information, What Improvements are Needed for Concept, Travel Time Information, and Impacts to Other Roadway Facilities*
- Page 2 consists of the following information: *Advantages for the Concept and Disadvantages for the Concept*

# Concept 1: Existing Alignment

## Description of Concept:

This concept would maintain the current alignment that runs from the Butte/Tehama County line to the Junction of SR 36. At the Jct of SR 36/SR 99, this route continues as SR 36 for two miles to the Jct of I-5 in Red Bluff.

## Photo:

SR 99 operates as a "main street" for the community of Los Molinos.

## Operational Information:

| Traffic and LOS for Existing Alignment Concept | | | |
|---|---|---|---|
| | **Peak Hour Range** | **AADT Range** | **AADT LOS** |
| **2007** | **600-1700** | **5300-16700** | **C** |
| **2027** | **900-2250** | **8700-24700** | **C** |
| **2057** | **Traffic volumes are high; however, traffic flow is fairly smooth; lower speeds and congestion will be encountered in Los Molinos and Red Bluff.** | | |
| ***The information above reflects the assumption that the improvements described below have been completed at 2027 and 2057, respectively.*** | | | |

## What Improvements Are Needed for Concept:

Opening Day: Minimal

Year 20: Add passing lanes, major reconstruction to address shoulder width and floodplain issues, traffic control, and reduce/eliminate private driveway access points to improve safety and capacity.

Year 50: Expansion to 4 lane expressway, total reconstruction, new bridges, frontage roads, traffic control, continued reduction/elimination of access points.

## Travel Time Information (Peak Hour):

***From SR 99/South Avenue intersection I-5 to Red Bluff on SR 99 , then on SR 36 to I-5 in Red Bluff***

*2007: 37 minutes*

*2027: 47 minutes*

*2057: 60 minutes*

*Assumes described improvements have been completed*

## Impacts to other roadway facilities:

*No traffic and LOS impact to South Avenue*

*Traffic and LOS impacts to Aramayo Way.*

*Traffic and LOS impacts to Tehama and Vina Road.*

*Traffic and LOS impacts to Gyle Road.*

*Traffic and LOS impacts to San Benito Road.*

# Concept 1: Existing Alignment

### Advantages for the Concept:

1. The route is already an existing State highway.
2. Initially, this concept will be less expensive as very few improvements are needed opening day.
3. There may be some positive benefit to businesses in Vina, Los Molinos, Dairyville, and the City of Red Bluff.
4. Does not require action by the California Transportation Commission (CTC).
5. Negotiation over ownership/management of the existing highway is not necessary.

### Disadvantages for the Concept:

1. There will continue to be commercial truck traffic and vehicle traffic impacts to Vina, Los Molinos, Dairyville, and the City of Red Bluff.
2. Right of way will need to be acquired to add left and right-turn pockets, two-way left turn lanes, passing lanes and eventually four lanes.
3. Extensive traffic and commercial truck control needs during construction resulting in delays.
4. There are environmental species and habitat along the route that need to be protected or impacts mitigated.
5. May be difficult to avoid environmentally sensitive areas.
6. The current alignment has drainage and floodplain challenges that need to be improved.
7. This route is parallel to the railroad and the Sacramento River, and this could be a challenge when expanding roadway.
8. There would be loss of agriculture land when expanding roadway.
9. Old growth trees would need to be taken out to expand the roadway.
10. Some of the existing bridges will need to be reconstructed.
11. A set of parallel bridges or extensive widening on existing bridges will be needed at all stream crossings to expand to four lanes.
12. Expansion to four-lane expressway will require complete reconstruction of the entire route from South Avenue to SR 36 which will be extremely expensive.

# Concept 2: South Avenue Alignment

## Description of Concept:

This concept would involve upgrades to South Avenue to State highway standards. It would become the primary Northern connection for SR 99 to I-5.

## Photo:


The local road known as South Avenue is an option to be upgraded to State Highway standards.

## Operational Information:

| Traffic and LOS for South Avenue Concept | | | |
|---|---|---|---|
| | **Peak Hour Range** | **AADT Range** | **AADT LOS** |
| **2007** | **500-600** | **5000-6000** | **C** |
| **2027** | **700-800** | **7000-8000** | **C** |
| **2057** | **Outside the City of Corning the route will operate well, however, there may be some congestion and delays in Corning.** | | |
| ***The information above reflects the assumption that the improvements described below have been completed at 2027 and 2057, respectively.*** | | | |

## What Improvements Are Needed for Concept:

Opening Day: Need to improve to State highway standards and address existing floodplain issues.

Year 20: Acquire additional right of way, add passing lanes, traffic control, upgrade structures, and reduce/eliminate private access points to improve safety and capacity .

Year 50: Expansion to 4 lane expressway, acquire additional right of way, new 4-lane Sacramento River Bridge, remove old bridge, traffic control, substantial environmental impacts, continued reduction/elimination of access points.

## Travel Time Information (Peak Hour):

***From South Avenue/SR 99 intersection to South Avenue/I-5 interchange via South Avenue***

*2007: 37 minutes*

*2027: 43 minutes*

*2057: 55 minutes*

*Assumes described improvements have been completed*

## Impacts to other roadway facilities:

*Positive traffic and LOS impact to existing SR 99*

*Traffic and LOS impacts to Corning Road*

*Traffic and LOS impacts to roads and intersections in Corning*

# Concept 2: South Avenue Alignment

### Advantages for the Concept:

1. South Avenue is an existing roadway and currently being used.
2. Potentially, there could be economic gain to the City of Corning by bringing more traffic to the city.
3. South Avenue passes directly by two large truck stops which is a benefit for trucking.
4. Substantial improvements to the South Avenue/I-5 interchange are in progress.
5. Route is already being used to avoid delays on SR 99 north of Los Molinos.
6. City of Corning has a *Highway 99W Specific Plan*. The design elements of the specific plan suggest limited number of access points into the adjacent arterials including South Avenue.

### Disadvantages for the Concept:

1. The concept would require major upgrades of the roadway to meet State highway standards.
2. Floodplain issues require raising the existing roadway and structure profiles near the Sacramento River.
3. Relatively high cost to address the above two issues prior to opening day.
4. Extensive traffic and commercial truck control needs during construction resulting in delays.
5. Currently, many access points exist on South Avenue, and this presents a challenge to get controlled access.
6. Right of way will need to be acquired to add left and right-turn pockets, two-way left turn lanes, passing lanes and eventually four lanes.
7. Impacts to Woodson Park will be significant and difficult to mitigate.
8. May be difficult to avoid environmentally sensitive areas.
9. A set of parallel bridges will be needed at all stream crossings to expand to four lanes.
10. An entirely new four-lane bridge will be needed across the Sacramento River at year 50—very high cost.
11. Potentially, there would be business loss to Vina, Los Molinos, Dairyville, and the City of Red Bluff.
12. Requires complex negotiations to address ownership/management of existing (will become former) SR 99.
13. Requires action by the CTC to adopt as a State highway.
14. Funding to achieve these expensive improvements would be difficult to obtain.
15. Requires 2 new railroad crossings.
16. Must address weight restriction on Sacramento River Overflow #1 (08C0076) and #2 (06C0077).

# Concept 3: New Alignment to I-5

## Description of Concept:

This concept would involve a new alignment connecting SR 99 to I-5 from the SR 99/South Avenue intersection and connecting to I-5 between Corning and Red Bluff. Exact alignment would be determined in future studies.

## Photo:

This area in Tehama County may be one of the locations that allows for a new alignment for SR 99.

## Operational Information:

| Traffic and LOS for Concept | | | |
|---|---|---|---|
| | **Peak Hour Range** | **AADT Range** | **AADT LOS** |
| **2007** | **450-500** | **4500-5000** | **A** |
| **2027** | **600-700** | **6000-7000** | **B** |
| **2057** | **Traffic will flow at or near posted speed, little if any congestion.** | | |
| ***The information above reflects the assumption that the improvements described below have been completed at 2027 and 2057, respectively.*** | | | |

## What Improvements Are Needed for Concept:

Opening Day: Design and built a two-lane expressway with access control, acquire all right of way, build new Sacramento River and railroad overcrossings, new interchange at I-5, and avoid or mitigate environmental issues.

Year 20: Minimal improvements are needed since the route will still be adequate for traffic volumes.

Year 50: Expansion to 4 lane expressway, widen structures including the Sacramento River Bridge to accommodate 4 lanes.

## Travel Time Information (Peak Hour):

***From 99/South Avenue intersection to I-5 via new alignment then on I-5 to Red Bluff***

*2007: 25 minutes*

*2027: 27 minutes*

*2057: 35 minutes*

*Assumes described improvements have been completed*

## Impacts to other roadway facilities:

*Positive traffic and LOS impact to existing SR 99*

*Positive traffic and LOS impact to existing South Avenue*

# Concept 3: New Alignment to I-5

### Advantages for the Concept:

1. Roadway and all features built to current expressway standards.
2. Potential brand new interchange with standard features.
3. Best operation (Level of Service) on opening day and in future years.
4. Right of way less costly because majority of the land is currently undeveloped.
5. Controlled access expressway with no private driveway connections allows for better operation/fewer conflicts.
6. General Plan land use and zoning can be established along alignment to limit future development conflicts.
7. Some potential environmental impacts can be avoided entirely by choice of actual highway alignment.
8. Reduces the current and future traffic impacts to Vina, Los Molinos, Dairyville, and the City of Red Bluff.
9. Least expensive concept at year 20 and year 50.
10. May be able to use portions of existing roadways and interchanges.
11. Minimal traffic control and impacts to community during construction.
12. Faster travel route for emergency responses and evacuations.
13. This alignment will provide the shortest travel time.

### Disadvantages for the Concept:

1. Most expensive concept at opening day.
2. Need to select exact location of alternative.
3. Need to cross over local roads, Sacramento River, and railroads.
4. Need to acquire right of way.
5. Potential level of environmental impact unknown but likely substantial.
6. There will be loss of agricultural lands due to highway construction.
7. Potential business loss to the Cities of Red Bluff and Corning and communities along existing SR 99.
8. Requires complex negotiations to address ownership/management of existing (will become former) SR 99.
9. Requires action by the CTC to adopt as a State highway.
10. High up-front cost will make difficult to obtain funding.

## Conclusion and Recommendation

Within the next twenty years, major investment will be needed to address growth in traffic along SR 99. Once a significant level of investment is made on the existing route, it will no longer be feasible to consider other options.

Over the past twenty years, three basic options for the future have been identified: existing alignment, South Avenue alignment, and a new alignment to I-5. As shown in this report, there are a number of potential advantages associated with each concept.

The lack of a common vision for SR 99 has major impacts relating to safety, goods movement, the cities and communities that lie along the route, future project selection and development, planning activities, and determining the best investment decision for the route and its users.

It is recommended that Caltrans and the Tehama County Transportation Commission, Cities of Red Bluff, Corning, and Tehama and the County of Tehama undertake a feasibility study to fully evaluate each of the potential concepts and select a preferred route alternative.

**Recommendation:**
**Conduct a feasibility study to fully evaluate each concept.**

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# APPENDIX A

## Other Plans, Policies, and Studies

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# State Route 99
# Transportation Concept Report

## *Other Plans, Policies, and Studies*

## Background

This section focuses on the research of other plans, policies, and studies to develop an understanding for SR 99. Plans, policies, and studies have shaped the development of SR 99, as it exists today, and will influence future decisions within the corridor. For this report over 20 plans and studies relevant to SR 99 within District 2 were reviewed, including federal highway system documents, statewide policy documents, regional transportation system plans, and site-specific studies. As one would imagine, within a 25-mile stretch of a 472-mile corridor numerous plans and studies have been prepared that in one form or another could potentially influence conditions and/or decisions on SR 99. While the research endeavored to be as extensive as possible, other documents that could potentially affect SR 99 likely exist that have not been reviewed.

This section contains a general summary and a statement of relevance to this TCR for each plan, policy, and study listed. Most of these plans, policies, and studies are not provided in the **Appendix G-Glossary**, since they are in summarized here.

## Federal Level

***Economic Development History of State Route 99 in California (2003)***
***FHWA, Planning***
http://www.fhwa.dot.gov/planning/econdev/sr99ca.htm#edn1

**Summary**

California SR 99 is among the most dynamic highways in the country. Specifically, this report focuses on the San Joaquin Valley stretch of SR 99, from the southern terminus at I-5 in Kern County to Sacramento-San Joaquin County line. Population and traffic counts have dramatically increased during the past twenty years. Linking northern and southern California, the SR 99 corridor is attracting residents and industry from the high-cost metropolitan areas of San Francisco and Los Angeles. Population is increasing in all counties. A concentration of distribution centers is emerging in the southern end of the valley. Few locations in the world have a greater concentration of high-value agriculture. The vibrant farming industry causes SR 99 to be one of the busiest heavy-duty truck corridors in the country. Government officials and business leaders recognize the relationship between economic health and transportation conditions and are undertaking major initiatives to improve SR 99.

**Relevance to SR 99**

The purpose of the project is to provide an economic review of the SR 99 corridor in the San Joaquin Valley. SR 99 is a critical link in transporting the valley's agricultural bounty to market. The valley is experiencing significant growth and SR 99 is becoming more congested. This could one day happen to the SR 99 corridor in the Sacramento Valley which includes Tehama County.

## California State Level

### *District 2 SR 99 Route Concept Report (RCR) (1981)*
***California Department of Transportation, District 2, Office of System Planning***

**Summary**

The RCR is a document that focuses specifically on the route and identifies current operating conditions, future deficiencies, route concept, and concept level of service, and conceptual improvements for a route.

**Relevance to SR 99**

The RCR is now referred to as the TCR. The 1981 SR 99 RCR provides insight into the trends of that decade and provides historical information about SR 99. Given that the document is now over twenty-years old, its value to decision makers and the general public is limited.

### *SR 99 Transportation Concept Reports (varies dates)*
***California Department of Transportation, Offices of System Planning***
http://www.dot.ca.gov/hq/tpp/offices/oasp/system_planning.html

**Summary**

The TCR is a twenty-year consensus-based transportation-planning document for State highways. Caltrans staff prepare these reports with assistance from Metropolitan Planning Organizations/Regional Transportation Planning Agencies, Local Transportation Commissions, counties, cities, Tribal Governments, community-based-organizations, and the public involved with the route. The TCR analyzes traffic conditions, demographics, local economies, land use, and environmental issues, and identifies potential future needs and projects.

**Relevance to SR 99**

SR 99 runs from Kern County to Tehama County. Besides Caltrans District 2, SR 99 transverses other Caltrans' Districts of 10, 6, and 2. These Districts adopted TCRs for portions of SR 99 on the following dates:

**District 3-May 2004**
**District 6-November 2002**
**District 10-November 2003**

All of these TCRs are relevant to the District 2 SR 99 planning process because they tell the global story of the route. They were referenced for general information regarding the corridor. It is particularly important that the facility concept in the District 2 and District 3 TCR be consistent at the Butte/Tehama border.

### *Special Study Concept for Future Improvements (1991)*
***California Department of Transportation, Office of Advanced Planning***

**Summary**

This special study is determine whether the concept for future improvements between Chico and Red Bluff should be a conventional highway with passing lanes (proposed for Butte County) or a four-lane divided expressway (proposed for Tehama County).

**Relevance to SR 99**

This study discussed the traffic volumes history and future traffic projections for this route. After some meetings, the final proposal was to construct passing lanes in the first few miles in Tehama County.

***Interregional Strategic Plan (ITSP) (1998)***
***California Department of Transportation, Office of Advanced System Planning***
http://www.dot.ca.gov/hq/tpp/offices/oasp/links_files/Strategic.PDF

**Summary**

The plan describes and communicates the framework in which the State will carry out its responsibilities for the Interregional Improvement Program (IIP). It also identifies how the Department will work with regional agencies to consult and seek consensus on the relative priority of improvements.

**Relevance to SR 99**

This Plan conveys key elements of on-going and short and long-range transportation planning and discusses route classifications. This Plan identifies Focus Routes (including SR 99) which represent a subset of the Interregional Road System that should receive the highest priority for completion to minimum facility standards in the next 20-year period. It recommends that SR 99 in Tehama County be 4 lanes.

***Global Gateways Development Program (2002)***
***California Department of Transportation, Office of Goods Movement***
http://onramp.dot.ca.gov/hq/tpp/offices/ogm/statewide.html

**Summary**

The Program reflects a strategy developed in cooperation with goods movement industry representative and other stakeholders for improving the flow of national and international trade to and through California's seaports, airports, international ports of entry, intermodal transfer facilities, and major highway and rail corridors. The Program identifies high-priority seaport, airport, and border access and intrastate transportation improvements for potential State, federal, and other funded. The identified improvements are intended to facilitate the movement of intrastate, interstate, and international trade that benefits the California economy.

**Relevance to SR 99**

One of the priority global gateway corridors in California is SR 99. The nation relies heavily on this system, particularly for access to agriculture products. The program suggests that upgrades to State Route 99 through the Central Valley are key to California maintaining its place in the movement of domestic and international trade. There is also the need to complete the State's major international trade corridor routes to a minimum high level standard. This is especially apparent in the Central Valley, with the need to upgrade State Route 99 between Bakersfield and Sacramento to current freeway standards. The Program was designed to generate discussion among policy makers, the transportation industry and the public so that the state's most pressing goods movement issues can be solved.

***The California Department of Transportation Guide for the Preparation of Traffic Impact Studies (TIS) (2002)***

***California Department of Transportation, District 6, Office of Community Development***

http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

**Summary**

This guide was developed to improve the Department's intergovernmental review/CEQA process. The guide promotes consistency and uniformity in the identification and analysis of traffic impacts generated by local development and land use changes.

**Relevance to SR 99**

Local development and land use changes happen regularly on SR 99. This guidance document allows for traffic impact analyses to be completed in a consistent matter.

***California Transportation Plan (CTP) (2006)***

***California Department of Transportation, Office of State Planning and Research***

http://www.dot.ca.gov/hq/tpp/offices/osp/ctp.html

**Summary**

This Plan is a statewide, long-range transportation plan that will guide transportation decisions and investments in the 21st century. It contains a vision for transportation in year 2025 and beyond, and sets goals, policies, and strategies to achieve this vision. The CTP does not recommend individual projects; rather, it provides guidance in the selection of strategies that will meet statewide targets for performance of the transportation system. Some of the acts guiding the CTP 2025 include the Federal *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for All Users (SAFETEA-LU)* and the *GoCalifornia* mobility initiative.

**Relevance to SR 99**

The policies, goals, and strategies in the Plan are designed to preserve the transportation system and provide mobility and accessibility for California's growing population, while enhancing the state's environment, economy, and social equity. One policy is "to increase system capacity", which aims to "add lanes and road were feasible and determined to be the best alternative (and this includes major arterial streets)." Another policy statement is to "enhance goods movement mobility, reliability, and system efficiency." The strategy to "focus a statewide system investments on corridors and gateways that handle the highest volumes of freight traffic and/or have the most significant transportation problems" fits SR 99.

***Route 70/99 Corridor Business Plan (2007)***

***California Department of Transportation***

**Summary**

This plan is designed as a guide for decision-makers to make strategic investments decisions for improving the mobility and accessibility in the corridor. The Plan addresses the length of the corridor in District 2 and 3. Projects are suggested to improve safety, increase capacity, and close gaps in the route that are critical for movement of goods, services, and people in the eastern Sacramento Valley.

**Relevance to SR 99**

This plan focuses on the corridor from the Sacramento/San Joaquin County Line to the junction of SR 36 in Red Bluff. A potion of this is in Tehama County and the plan discusses the existing and future conditions and identifies projects for improvements. The only improvement identified for SR 99 in District 2 was for "main street upgrades" in Los Molinos.

## ***Goods Movement Action Plan (2007)***
### ***California Department of Transportation, Office of Goods Movement***

**Summary**

Governor Schwarzenegger began an effort to assemble goods movement stakeholders to learn about the problems, opportunities, and challenges facing the future of goods movement within the State. Cabinet members from the BTH and Cal/EPA co-chaired the committee and their task was to develop a Goods Movement Action Plan.

**Relevance to SR 99**

While I-5 is considered the backbone of California's highway system, State Route 99, from south of Bakersfield to Sacramento, actually may be more important in terms of agricultural trade. It also provides a critical south to north connection on the eastern side of the Central Valley and links to I-80, I-205 and SR 58.

## ***Strategic Growth Plan and GoCalifornia (2008)***
### ***California Department of Transportation, Office of Strategic Planning***
http://www.bondaccountability.ca.gov/Strategic_Growth_Plan/

**Summary**

Governor Schwarzenegger has sponsored the Strategic Growth Plan, part of which is a historic comprehensive transportation investment package that incorporates *GoCalifornia*, a mobility action plan designed to decrease congestion, improve travel times, and increase safety. The plan looks ahead twenty years and develops a program of strategies and projects to meet increasing transportation needs and reduce congestion to below today's levels. In May 2006, the California Legislature proposes a $36 million infrastructure bond (SB 1266) that was part of and is a direct result of the Governor's Strategic Growth Plan. California voters approved the transportation portion of the package (Propositions 1A and 1B) on the November 2006 ballot.

**Relevance to SR 99**

Proposition 1B authorized SR 99 to received $1 billion for improvements on the over 400-mile highway through the heart of the Central Valley. SR 99 in District 2 received a portion of these funds for a "main street" project in Los Molinos. The improvement focuses on improving sidewalk, curbs, gutters, and drainage for the community.

## Regional/Local Level

***Caltrans, District 2 Cycling Guide for State Highways of Northern California (2004)***
***California Department of Transportation, District 2, Office of System Planning***
http://www.dot.ca.gov/dist2/pdf%20files/cycling_guide.pdf

**Summary**

The Guide is designed to give the cyclist an idea what to expect when cycling in the northeastern counties of California, the area covered by Caltrans District 2.

**Relevance to SR 99**

Bicyclists are allowed to ride on SR 99 in District 2. Additionally, since portions of I-5 are closed to bicyclists, SR 99 is the designated alternative bicycle route.

***Corning Area Traffic Study (2005)***
***California Department of Transportation, District 2, Office of System Planning***
***Caltrans, Tehama County Transportation Commission, and City of Corning***

**Summary**

Phase I of the South Avenue/I-5 interchange reconstruction in Tehama County is scheduled for completion in 2009. The purpose of the Corning Area Traffic Study was to determine the traffic flow and traveler patterns at the three main interchanges (Liberal Avenue, South Avenue, and Solano Avenue) in the Corning area. Traffic counts and license plate data was collected and analyzed to determine the portion of traffic at the South Avenue/I-5 interchange that was travelling between I-5 and SR 99 using South Avenue.

**Relevance to SR 99**

This study identifies the traffic patterns on major streets and highways in the City of Corning and Tehama County that provide access to I-5. The study found that 15% of the traffic using South Avenue was traveling between SR 99 and I-5.

***Caltrans Origin and Destination Study (2006)***
***California Department of Transportation, District 2, Office of System Planning***

**Summary**

In the fall of 2006 Caltrans hired Kimley-Horn Associates, Inc to conduct an origin and destination (O & D) traffic study. The primary goal of this study was to help determine regional and interregional travel patterns on both state and interstate routes in northern Tehama and southern Shasta Counties.

**Relevance to SR 99**

The study is a tool to aid in future project related decisions such as regional impact fees, determination of future project prioritization and funding, and other projects where the study results could provide better insight into travel patterns on I-5 and other state highways including SR 99. It was found that about 50% of the volume on SR 99 north of South Avenue is interregional and about 50% has a local destination.

***Tehama County Regional Transportation Plan (RTP) (2006)***
***Tehama County Transportation Commission***
http://www.tehamacountypublicworks.ca.gov/Transportation/documents/RTP/RTP_all.pdf

**Summary**

State law requires each regional transportation planning agency/transportation commission to adopt and submit an updated RTP to the CTC and the Department of Transportation. The plans are developed to provide a clear vision of the regional transportation goals, policies, objectives, and strategies. The vision must be consistent with financial constraints.

**Relevance to SR 99**

SR 99 is a significant route discussed in the Tehama County RTP. Discussion items regarding SR 99 includes being in the bond package for $1 billion for improvements to the route, improvements needed to maintain LOS, and improvement options for Tehama County circulation.

***General Plans (varies)***
***Cities and Counties Planning Departments***
http://ceres.ca.gov/planning/

**Summary**

Under state law, all cities and counties must prepare a general plan. The general plan is a legal document that serves as the "constitution" for a community's land use and development activities. There are seven mandatory elements of the general plan. They include the following: land use, circulation, housing, conservation, open space, noise, and safety.

Along SR 99 corridor, there are the four relevant general plans:

**Tehama County**
http://www.tehamagp.com/

**City of Tehama**
**City of Red Bluff**
**City of Corning**

**Relevance to SR 99**

The general plan serves as a blueprint for a city or county's anticipated growth and likely future impacts to the state highways such as SR 99. These documents are a key part of developing traffic forecasts, as they tell the when and where of growth.

***District 2 Intelligent Transportation System (ITS) Architecture and Development Plan (2008)***
***Provided by Caltrans District 2, Office of Community and Regional Planning for Regional Agencies***

**Summary**

The seven counties in District 2 (Modoc, Lassen, Plumas, Shasta, Siskiyou, Tehama, and Trinity), Caltrans District 2, along with stakeholders in the community, are working to complete the District 2 ITS Architecture and Deployment Plan. Shasta's Plan is completed. This document identifies where various electronics,

communications, information processing systems, and hardware devices can be deployed to improve the safety and efficiency of the surface transportation system.

**Relevance to SR 99**

The Plan lists from a strategic perspective how to manage the SR 99 corridor, apply for Federal and State funding, and allow for opportunities for coordination between jurisdictions.

***Tehama County Bikeways Plan (2008)***
***Tehama County Public Works***
http://www.tehamacountypublicworks.ca.gov/Transportation/documents/2008%20Tehama%20County%20Bikeways%20Plan.pdf

**Summary**

The plan discusses current bikeways and proposed future bikeways in Tehama County.

**Relevance to SR 99**

In regards to SR 99, the plan lists SR 99 as a regional corridor. Additionally, the plan identifies Tehama County priorities which include a proposed bike trail from Dairyville to Los Molinos.

# APPENDIX B

## Guiding Resolution

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# TEHAMA COUNTY TRANSPORTATION COMMISSION
## RESOLUTION No. 1-2009
## COMMENCEMENT OF STATE ROUTE 99
## TRANSPORTATION CONCEPT REPORT (TCR)

**WHEREAS**, the Tehama County Transportation Commission is responsible for regional transportation planning for Tehama County and the incorporated cities of Corning, Red Bluff and Tehama, and said responsibilities include the functional relationship between the local road system and state highway system; and

**WHEREAS,** the California Department of Transportation (Caltrans), District 2 is responsible for the planning, construction, and operation of the state highway system, which includes the functional relationship between the State highway system and local road system;

**WHEREAS**, Caltrans District 2 in cooperation with the Tehama County Transportation Commission is commencing on the preparation of the Transportation Concept Report for State Route 99 which sets forth a conceptual plan for the development and operation of the highway for the next twenty years, and the Long-Range Facility concept that describes the facility that may be ultimately needed.

**WHEREAS,** preparation of the State Route 99 Transportation Concept Report will also involve local elected officials, city and county staff, community organizations, State and Federal agencies, Tribal Governments, the general public and many other organizations; and

**WHEREAS**, the State Route 99 Transportation Concept Report identifies operational and capacity improvements that will be necessary to maintain desired operating conditions/level of service over the twenty year planning horizon; and

**WHEREAS**, the State Route 99 Transportation Concept Report also identifies improvements on or near the state highway system that will facilitate regional or local development, improve local circulation and enhance quality of life; and

**WHEREAS,** said report does not determine the ultimate alignment of State Route 99 North of Butte County. It is understood that a more detailed feasibility study may be pursued in the future if the partner agencies make that determination.

**NOW, THEREFORE, BE IT RESOLVED** by the Tehama County Transportation Commission and its Technical Advisory Committee (TAC) have chosen to participate in the development of the State Route 99 Transportation Concept funded by Caltrans District 2 and assist in the public outreach efforts to local communities on said route.

**NOW, THEREFORE, BE IT FURTHER RESOLVED,** that the plan is scheduled to be completed by June 30, 2009 in accordance with Proposition 1B.

The foregoing Resolution was offered by Commissioner Russell and seconded by Commissioner Christinson at a regular meeting, March 3, 2009 and adopted by the following vote:

**AYES:** Commissioners': Warner, Russell, Strack, Willard, Byrne, and Christinson
**NOES:** None
**ABSENT OR NOT VOTING:** None

**ATTEST: Gary Antone, P.E, P.L.S**
**EXECUTIVE DIRECTOR**

**BY:** _____
**Linda Madea, Recording Secretary**

**Adopted: March 3, 2009**

_____
**Chairperson**

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# APPENDIX C

## Intelligent Transportation Systems

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# State Route 99
# Transportation Concept Report

## *Intelligent Transportation Systems (ITS)*

## Background

This section focuses on ITS plans, existing ITS, and Traffic Count Stations along the SR 99 corridor. The acronyms used in this section are defined in the **APPENDIX B: Glossary.**

Intelligent Transportation Systems (ITS) involve the use of advanced computer, electronic and communications technologies to increase the safety and effectiveness of the entire surface transportation system. ITS emphasizes adding value to and enhancing the ability to travel on existing infrastructure (highways, streets, bridges, trains) - it's not a mode of transportation itself. Some examples of ITS technologies include advanced traffic signals, roadway and weather monitoring stations, bus and maintenance vehicle location systems, electronic roadside information signs and automated vehicle control systems. Adding these technologies to our transportation system will save lives, time and money.

All roads and transit lend itself to ITS applications. Some specific areas that SR 99 could benefit from ITS applications:

- Early warning signs for detours
- Agriculture and Deer warning devices
- Floodplain monitoring
- Transit systems

**Table 19** includes a summary of existing and proposed ITS elements. **Table 20** lists location and type of existing SR 99 ITS elements. Proposed ITS elements can be found in **Table 21.**

**ITS Acronyms**

**CS = Census Stations**
**CMS = Changeable Message Sign**
**CCTV = Closed Caption Television**
**ESS=Electronic Speed SIgn**
**HAR = Highway Advisory Radio**
**Sign HAR = Signed Highway Advisory Radio**


***ITS ELEMENT. Speed sign on SR 99 In Tehama County displays speeds for drivers.***

**TABLE 19**
**SR 99 Corridor ITS Elements Summary**

| ITS ELEMENT | Existing | Proposed |
|---|---|---|
| **CS** | 9 | 0 |
| **CCTVs** | 1 | 0 |
| **ESS** | 2 | |
| **Fixed CMSs** | 0 | 2 |
| **HAR** | 0 | 1 |
| **Sign HAR*** | 2 | 0 |
| **Total ITS Elements** | **14** | **3** |
| | **Future Total = 17** | |

* These HARs are on SR 36 in Red Bluff.
Source: Caltrans, District 2, Office of Traffic Management

| TABLE 20<br>SR 99 Existing ITS Elements | | | | | |
|---|---|---|---|---|---|
| **County** | **Route** | **PM** | **Direction** | **Location** | **Type** |
| Tehama | 99 | 4.49 | South | Vina (SR 99 at South Avenue) | CCTV |
| Tehama | 99 | 11.50 | North | South of Los Molinos | ESS |
| Tehama | 99 | 12.00 | South | In Los Molinos | ESS |
| Tehama | 36 | 43.00 | East | Mulberry Ave. – Red Bluff | Sign HAR |
| Tehama | 36 | 43.70 | East | St. Mary's Road – Red Bluff | Sign HAR |
| Source: Caltrans, District 2, Traffic Management | | | | | |

| TABLE 21<br>SR 99 Proposed ITS Elements | | | | | |
|---|---|---|---|---|---|
| **County** | **Route** | **PM** | **Direction** | **Location** | **Type** |
| Tehama | 99 | 5.90 | North & South | Vina Area | HAR |
| Tehama | 99 | 24.00 | North | Jct. 36 and Hwy 99 | CMS |
| Tehama | 99 | 24.00 | South | Jct. 36 and Hwy 99 | CMS |
| Source: Caltrans, District 2, Traffic Management | | | | | |

## ITS Plans

**Caltrans District 2 Regional ITS Architecture and Strategic Plans**

Caltrans District 2 collaborated with the seven counties in District 2 to develop and adopt a series of County-level ITS Architectures, in addition to a broader, integrated, District 2 ITS Architecture and Strategic Deployment Plan. These regulation-mandated documents (23 CFR 940) serve as a "framework" against which electronics, communications, information processing systems and hardware devices deploy to improve the safety and efficiency of the transportation system. These architectures and plans would serve to:

1. Maintain and support the Caltrans District 2 ITS Elements list created by the District 2 Office of Traffic Management;
2. Bring future County, and District-level ITS deployments into compliance with Federal regulations,
3. Maintain and support the Tehama County and TRAX ITS elements list,
4. Augment District-level Transportation Concept Reports and County-level Regional Transportation Plans (RTPs) with definitive ITS deployment plans, and
5. Supports the larger Statewide ITS Architecture (SWITSA).

## Traffic County Stations

Count stations are the main way traffic counts are taken on SR 99. **TABLE 22** summarizes the traffic count stations on SR 99. From the table, there are control stations and classification counts on SR 99. Descriptions of these traffic count stations follow:

- Control Stations are counted in one-hour intervals by direction. The control stations provide day and seasonal factors used to factor profile counts to annual average daily traffic (AADT). Control Stations, at a minimum, are counted at least 7 days quarterly in a symmetrical pattern every three years. Many control stations are counted continuously every day of the year.
- Classification counts are generally collected at control station sites or at locations of significant change in truck traffic. At low volume sites, hoses will be used to classify traffic. Manual classifying is currently being done for a partial day count on high volume routes. Truck counts are collected continuously at Weigh-In-Motion (WIM) and Automatic Vehicle Classification (AVC) sites. On low-volume roads, portable AVCs are set up to collect quarterly counts every three years. On high-volume multiple-lane routes with no WIM or AVC, manual truck counts are collected for a 6-8 hour time period every three years.

**TABLE 22**
**SR 99 Existing Traffic Census Stations**

| County | Route | PM | General Location | Station Type |
|---|---|---|---|---|
| Tehama | 99 | 0.11 | North of Butte-Tehama County Line | Class |
| Tehama | 99 | 4.30 | South of South Avenue | Count |
| Tehama | 99 | 5.08 | South of Vina Road | Count |
| Tehama | 99 | 11.09 | South of Sherman Street | Count |
| Tehama | 99 | 12.29 | South of Aramayo Way | Count |
| Tehama | 99 | 24.76 | South of Salt Creek Overflow | Count |

Source: Caltrans, District 2, Traffic Management

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# APPENDIX D

## Federal and State Route Designations

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# State Route 99
# Transportation Concept Report

## *Federal and State Route Designations*

## Route Designations

Route Designations identify the function a route serves. The following information contains designations for the SR 99 corridor.

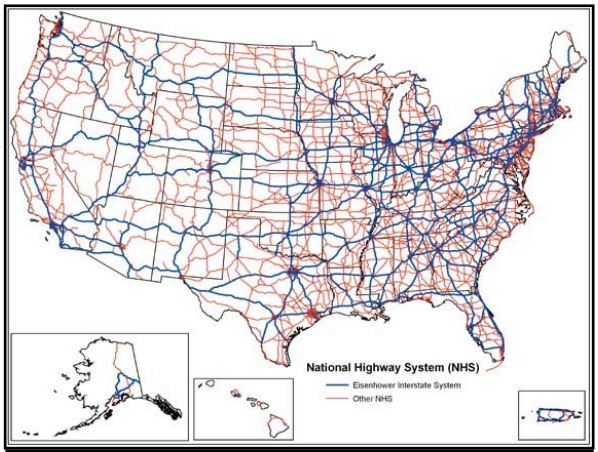
### Federal Designations

- **Network for Surface Transportation Assistance Act (STAA) Trucks**
  Added: 1982
  Legislation: Surface Transportation Assistance Act (STAA)
  The STAA Act requires states to allow larger trucks on the Interstate system plus the non-Interstate Federal-aid Primary system. "Larger trucks" includes (1) doubles with 28.5-foot trailers, (2) singles with 48-foot semi-trailers and unlimited kingpin-to-rear axle (KPRA) distance, (3) unlimited length for both vehicle combinations, and (3) widths up to 102 inches. The National Network (NN), Terminal Access (TA) and Service Access routes together make up the "STAA Network."

  State Route 99 is a TA route. TA routes can accommodate STAA trucks. TA routes allow STAA trucks to (1) travel between NN routes, (2) reach a truck's operating facility, or (3) reach a facility where freight originates, terminates, or is handled in the transportation process.

- **National Highway System (NHS)**
  Added: 1995
  Legislation: National Highway System Designation Act
  The purpose of the NHS is to provide an integrated national highway system that serves both urban and rural America; to connect major population centers, international border crossings, ports, airports, public transportation facilities, and other major travel destinations; to meet national defense requirements; and to serve interstate and interregional travel. The entire SR 99 is in the NHS.

**TRUCK ROUTE. A truck turns west onto South Avenue from SR 99.**




**NATIONAL HIGHWAY SYSTEM MAP.**

## State Designations

- **Blue Star Memorial Highways**
  Added: 1947
  Legislation: Segments are added by State Senate Concurrent Resolutions, State Assembly Concurrent Resolutions or Federal Senate Resolutions. For this particular route, it was SCR 22 and CH 82 that added the designation.
  After World War II, a nationwide movement was started to pay tribute to the nation's armed forces, by designating various State and national routes as "Blue Star Memorial Highways." In 1945, the National Council of State Garden Clubs, Inc. approved the Blue Star Memorial Highway Marker program. California Garden Clubs, Inc. accepted the program in 1947, when the California Legislature designated Highway 40 (now SR 80) and Highway 99. Over the years, additional routes have been added to the program. The entire SR 99 is in the Blue Star Memorial Highway System. The route is allowed to have appropriate memorial markers.

- **Freeway and Expressway System (F & E)**
  Added: Statues of 1959
  Legislation: California Streets and Highways Code-Sections 253.1-253.8
  The Statewide system of highways declared by the Legislature to be essential to the future development of California. The F & E System has been constructed with a large investment of funds in order to control access, and to ensure the safety and operational integrity of highways. The entire SR 99 is in the F & E System.

- **State Highway System (SHS)**
  Added: Statues of 1964
  Legislation: California Streets and Highways Code-Sections 300-635
  The intent of the legislature was to identify a set of routes in the State Highway System that serve the state's heavily traveled rural and urban corridors, connect the communities and regions of the state, and support the state's economy by connecting centers of commerce, industry, agriculture, mineral wealth, and recreation. The entire SR 99 is in the SHS.

- **California Truck Route Classifications**
  Added: AB 66 (1983) and SB 2322 (1986)
  Legislation: California Vehicle Code-Sections 35400-35414
  "California Legal" trucks can use portions of the STAA Network (NN and TA), California Legal routes, and Advisory routes. "California Legal" trucks have access to the entire State highway system except where prohibited. SR 99 allows "California Legal" trucks.

- **Interregional Road System (IRRS):**
  *The Interregional Road System is a subset of the State Highway System.*
  Added: 1989
  Legislation: Transportation Blueprint for the 21rst Century; In the California Streets and Highways Code-Sections 163-164.2
  The IRRS was conceived as part of a larger effort to address the critical transportation funding and development needs of the state. The legislation required the California Department of Transportation to define IRRS routes and create an interregional road system plan. IRRS is a series of interregional state and highway routes, outside the urbanized areas, that provide access to, and links between, the state's economic centers, major recreation areas, and urban and rural regions. In 1989 the IRRS plan identified 81 state highway routes, or portions of routes, that serve the interregional movement of people and goods. All interstates and major interregional routes (conventional, expressway and freeway) were included in the system. Six additional routes have been added to the system since that time by locally sponsored legislation, resulting in a total of 87 IRRS routes in statute. The entire SR 99 is in the F & E System.

- **High Emphasis Route**
  *High Emphasis Routes are a subset of the IRRS.*
  Added: 1990 IRRS Plan; 1998 Interregional Transportation Strategic Plan (ITSP)
  Legislation: None
  Due to the large number of routes and capacity improvements needed on the IRRS, the 1990 IRRS plan identified a subset of the 87 routes as being the most critical routes and identified them by the term "High Emphasis Routes." High Emphasis Routes are a priority for programming and construction. Originally,

there were 13 routes listed as High Emphasis Routes in the 1990 IRRS Plan. The 1998 Interregional Strategic Plan (ITSP) kept the original 13 High Emphasis routes and added an additional 21 routes to the category for a total of 34. In some cases, the High Emphasis routes in the ITSP are a series of joined portions of routes that constitute a major logical transportation corridor. The entire SR 99 is a High Emphasis Route.

- **Focus Route**
  *Focus Routes are a subset of High Emphasis Routes.*
  Added: 1998 Interregional Transportation Strategic Plan (ITSP)
  Legislation: None
  The term "Focus Route" is a phrase specific to the ITSP. Focus routes are a subset of the 34 High Emphasis Routes. The routes represent 10 IRRS corridors that should be of the highest priority for completion of minimum facility standards in the 20-year period. Focus routes will serve a system of high volume primary arteries to which lower volume and facility-standard state highway routes can connect for purposes of longer interregional trips and access into principal centers of major state, national, and international trade and commerce, goods movement, and intermodal transfer. All Focus Routes have the following designations: NHS, F & E System, STAA Truck or Terminal Access Routes. The entire SR 99 is a Focus Route.

- **Historic Highways Program**
  Added: 1993
  Legislation: California Assembly Concurrent Resolution No. 19, Chapter 73- Relative to Historic US 99
  This program requires the California Department of Transportation, upon application by an interested local agency or private group, to identify any section of former U.S. Highway 99 that is still a publicly maintained highway, and to designate that section as "Historic U.S. Highway 99." The Historic Highway Program does not appear to impact the management of the State highway System with the possible exception of signage issues and possible Transportation Enhancement (TE) project proposals. The portion of the Esplanade/Business 99 (Caltrans District 3) to Junction SR 36 in Red Bluff (Caltrans District 2) was originally a part of US 99. This section is eligible for US historic signage.

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# APPENDIX E

## Preliminary Environmental Assessment

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**Preliminary Environmental Assessment for Transportation Concept Report**
**From the Southern point of SR 99 from Butte/Tehama County Line to South Avenue-NB To the northern point of SR 99 at the Junction of SR 36 (Red Bluff East) to I-5**

The intent of this assessment is to provide an overview of known special status resource areas and/or species, and to possibly identify areas suitable for future highway improvements in an effort to avoid and/or minimize impacts to known resources. A systematic resource inventory will still be required before a comprehensive and up-to-date assessment can be undertaken for site-specific transportation projects. The following information is a partial listing of potential natural and cultural resources that exist along the existing transportation corridor and potential alternative alignments. This assessment is based on time-sensitive information available during the current timeframe. It is not intended to be an all-inclusive listing, but to provide general information on known and potential cultural resources, current Federal Endangered Species Act (FESA), and California Endangered Species Act (CESA) resources, potential permits, etc. that have potential to occur within the corridor. State special status species are not included with the report.

This report does not address cumulative impacts caused by the expansion of State Route 99 to four lanes, upgrade of South Avenue as a State highway and/or construction of any of the alternative east west connections to I-5, or permanent impacts to habitat and or resource loss, wetlands, permanent and temporary impacts to *waters of the U.S.*, etc. Mitigation for the cumulative impacts should be assessed prior to or early in the project development stage to identify, coordinate, consult, and develop the most effective and efficient overall solution(s) for those impacts. As projects are identified, funded, and developed, further studies are necessary to investigate specific locations of improvements, avoidance of resources, mitigation requirements, etc. in accordance with applicable laws and regulations.

The following includes an assessment of potential environmental resources to expand State Route 99 along the existing corridor, the South Avenue corridor or a potential new alignment that would leave existing SR 99 somewhere between South Avenue and Los Molinos to connect to I-5 somewhere between Corning and Red Bluff.

## *Socio-economic and Community*

State and Federal laws and regulations require consideration of social and economic impacts of projects in the preparation of environmental documents. Any combination of the proposed corridors will most likely require an environmental document, as the actions would not fall under an exempted category of either act. A study of socio-economic and community effects, such as a Community Impact Assessment, assesses how the proposed project would affect the people, institutions, neighborhoods, communities, organizations, and larger social and economic systems from temporary and permanent construction activities. Since the social and economic sections of an environmental document or assessment focus on important topics identified through a scoping process and a thorough public involvement effort, and is based on relevant existing conditions, it is difficult to provide specific potential impacts or the mitigation measures to reduce potential impacts, due to the complexities of socio-economics and communities and the time and place of any proposed project.

### *Farmlands*

Although no state or federal law explicitly prohibits conversion of agriculture lands to other uses, the state and federal governmental as well as many local jurisdictions, have established policies and programs to maintain farmland for agricultural use. The intent of the Department is to avoid, whenever practical, locating public improvements within agricultural preserves or acquiring high quality agricultural land for transportation improvements. There is a high potential to have a right of way take of farmlands in the rural agricultural areas of the county for expansion of the freeway, South Avenue or an alternative connector route as described in the transportation study. The Community Impact Assessment would most likely provide an assessment of the amount of land under cultivation, the number of acres under Williamson Act contracts, important crops, the value of agricultural production, a description of trends in farmland conversion in Tehama County and a description of applicable general plan, zoning, and other policies related to agriculture in the county. The importance of direct and indirect losses in farmland acreage, production, and revenue due to project effects should be assessed based on comparisons with the corresponding totals for the locality, county, or growing region. Federal acts, policies, laws, and regulations require that before taking or approving any federal action that would result in conversion of farmland, the federal agency must examine the affects and if adverse effects are found, must consider alternatives to lessen them. The conversion of farmland requires approval of the U.S. Natural Resource Conservation Service. No permits are required.

### *Section 4(f)*

Any of the project alignments may trigger a Section 4(f) evaluation if it results in any temporary or permanent impacts to any of the following type properties abutting the alignment: protected resources including lands from a historic site of national, state, or local significance, publicly-owned land from public parks, recreational areas of national, state, or local significance, wildlife or waterfowl refuges. Such land may be used for Federal-Aid highway projects only if there is no feasible and prudent alternative and all possible planning has been taken to avoid the use of a 4(f) property or to minimize harm to any 4(f) property affected by the project. Each project proposal must include a 4(f) avoidance alternative which will be subject to the balancing test of feasible and prudent as defined by federal regulation. A Section 4(f) Evaluation documents the considerations, consulation, and alternative studies supporting the conclusion that there are no feasible and prudent avoidance alternatives to the use of a 4(f) resource and that the proposed action includes all possible planning to minimize harm to the affected resource.

### *Visual Effects*

A visual assessment will be required and should include potential project effects and any appropriate mitigation. As the area is relatively flat and open, an elevated structure or onramp could have a visual intrusion that may cause a potential impact. In addition, while removing trees or excavating slopes may not be considered major impacts on an individual project, similar impacts on past, or future projects within a highway corridor can result in a cumulative impact to the visual environment when considering the combined result. Some methods for mitigating visual impacts can include type, treatment, and color for barriers and walls; architectural styles for bridge structures, upgraded rails, and miscellaneous hardware; contour grading plans that incorporate slope rounding; landscape treatment (e.g., planting for screening, revegetation), and aesthetic treatments to guardrail may be required. Tree removal must be addressed to minimize the effect on the visual setting. Vegetation removed from any properties found to be historically significant could become a sensitive issue.

### *Water Quality and Erosion*

Future projects are required to meet State and Federal requirements for water quality, to minimize erosion by current methods and practices like replanting any construction disturbed areas, and to implement the Department's best management practices to reduce any potential water quality impacts.

### *Floodplain*

A floodplain evaluation report would be necessary to analyze the effects of the alteration of the bridge footings on existing SR 99 and/or South Avenue and for any new construction areas that are within the 100-year floodplain. Local, state and federal water resources and floodplain management agencies must be consulted if any features of the project encroach on a 100-year base floodplain. Coordination also may occur in order to obtain current information on development and proposed actions in the effected watersheds. It is most likely that several features of the project would require a floodplain evaluation report.

According to the current Flood Insurance Rate Maps (FIRM) published by the Federal Emergency Management Agency (FEMA) there are Zone A (no base flood elevations determined) Special Flood Hazard Areas along the Sacramento River to the west of SR 99 as well as along many of the tributaries feeding in from the east side. There are several Zone A Tributaries that cross SR 99. They are also some areas the can be impacted by flood conditions that are not mapped.

The FIRM maps show a substantial portion of existing South Avenue to the west of SR 99 as within Zone A Special Flood Hazard Areas. This indicates that these areas are likely to be inundated during a 100-year storm event. Consultation with local, state and federal water resources and floodplain management agencies will be necessary to address floodplain impacts from any modification to South Avenue.

Any potential new highway alignment option will require a new bridge across the Sacramento River. As this entire portion of the river corridor is mapped with Zone A Special Flood Hazard Areas, any location selected for the new crossing and roadway alignment will require consultation with local, state and federal water resources and floodplain management agencies to address potential floodplain impacts.

### *Air Quality*

Air quality is a general term used to describe various aspects of the air that plants and human populations are exposed to in their daily lives. The Federal Clean Air Act (CAA) forms the basis for the national air pollution control effort. A basic element of the CAA is the National Ambient Air Quality Standards (NAAQS), which require that certain pollutants do not exceed specified levels. Areas with levels that exceed the standard for specific pollutants are designated as "non-attainment areas." "Attainment/Unclassified" status indicates that the area has never been designated non-attainment for that particular standard.

At the time of this assessment, there is no area designated non-attainment for air quality, although Tehama County has been on the fringe of being designated non-attainment of recent determinations. If Tehama County is designated non-attainment in the near future, early coordination (well before project initiation stage or development of the scope of work) with the

regional and resource agencies is necessary to obtain a conformity analysis. A further demonstration of transportation conformity–at the project level–is required if a project is located in a non-attainment or maintenance area included in the respective Regional Transportation Plan that is in conformity with the Clean Air Act State Implementation Plan.

Pollutants primarily considered in California are: carbon monoxide (CO); ozone (1-hour and 8-hour State, 8-hour Federal); particulate matter – PM10 (24-hour and annual); particulate matter – PM2.5 (annual State, 24-hour and annual Federal); and nitrogen dioxide (NO2; Federal only).

Below is a summary of air quality information and designations for Tehama County.

| | |
|---|---|
| **Air Basin:** | Sacramento Valley |
| **Air Quality District:** | Tehama County Air Poluution Control District |
| **State Attainment Status:** | Nonattainment; PM10; Ozone (1 hour) |
| **Federal Attainment Status:** | Attainment/Unclassified |

### *Energy*

Transportation-related activities account for approximately half of all the petroleum products consumed in California (Department of Energy, Petroleum Profile, 2000). While state and federal policies, such as the California Low-Emission Vehicle Program and the Federal Energy Policy Act of 1992, are increasing the use of alternative-fuel and low-emission vehicles, the consumption of non-renewable resources, such as fossil-fuels, remains high and points to the need to conserve such energy resources. Federal and state laws and regulations require the identification of potentially substantial (significant) energy direct and indirect uses and potential impacts. Balancing energy used during construction and operation against energy saved by relieving congestion and reducing out of direction travel, most projects, even new highway projects, would not have substantial energy impacts. The level of effort for the energy analysis for any of these should be based on the anticipated impact the project will have on energy use.

### *Noise*

Traffic noise may be identified in the project initiation stage or development phase near and through populated areas and sensitive land uses (residences, schools, and hospitals). If traffic noise impacts are predicted, noise abatement measures must be evaluated and considered. Preliminary noise abatement design includes considerations such as barrier heights, lengths, and location and could be included to mitigate impacts related to traffic noise.

### *Wild and Scenic Rivers*

At the time of the report, no Federally designated Wild and Scenic River is shown within the project area. Any new designations within or adjacent to the project area could require mitigation to reduce any visual or aesthetic impacts to that 4f resource.

### *Cultural Resources*

Cultural resources encompass archaeological sites, traditional cultural properties, and built environment resources, including but not necessarily limited to buildings, structures, objects, districts, and sites. Qualified cultural resources professionals, consulting with their peers, Native Americans, subject matter experts, or review authorities as necessary, conduct studies of those

cultural resources that could have the potential to possess significance and that could be affected by transportation projects.

An official record search of known archaeological resources has not been performed for this Preliminary Environmental Assessment. Therefore, a review of the Caltrans District 2 database has been the basis for the information summary for existing SR 99 in the table below. It should be assumed that there may be additional resources within this corridor.

| Segment | Cultural Database Summary |
|---|---|
| 1NB | There are no known sites within the right of way for this segment. |
| 1SB | There are no known sites within the right of way for this segment. |
| 2 | There are six recorded sites within this segment. Two are on the west, three on the east and one site is on both sides of the highway. |
| 3 | There are ten prehistoric sites recorded between State Route 99 and the Sacramento River |
| 4 | There are 23 sites recorded within this segment. It is believed that all are prehistoric. Nine sites are to the east of the highway, 13 are on the west side and one is on both sides. |
| 5 | There are three recorded sites within this segment. Two are on both sides of the highway and one is located to the west. |
| 6 | One historic site, a complex of buildings is recorded within this segment. |

It is probable that any widening along existing SR 99 through Tehama County will disturb cultural resources. This area is mostly level, located near the Sacramento River and contains many perennial streams, thus making it a popular area for both current and past habitation. Historic structures, both historic and prehistoric sites and traditional cultural properties may exist within proposed alignments of future highway projects. Buried sites are a possibility especially near creeks and the river as some areas have a thick layer of alluvium that may obscure old land surfaces.

An archaeological survey has been conducted only within the existing right of way for SR 99 through Tehama County. The numerous sites noted during this survey indicate that there is a likelihood of additional sites adjoining the right of way. Historic resources that will be affected by construction will need compliance with Section 106 of the National Historic Preservation Act. This can take anywhere between 18 months and three years to achieve.

Since no surveys have been conducted along the South Avenue or potential new alignment study options, it cannot be determined what the level of impact may be. The impacts from a new alignment option may be substantial, as the route would be through areas not currently developed. On the other hand, it may be possible to avoid (through shifting of alignment) sites for a new highway alignment whereas the ability to avoid sites for existing SR 99 and/or South Avenue is more difficult since the facilities already exist.

### *Native American Coordination*

The following Native American tribes or groups may have an interest in or be affected by the proposed project: Paskenta Band of Nomlaki Indians, Greenville Rancheria, Redding Rancheria, Wintu Tribe of Northern California, United Maidu Nation, and the Bureau of Indian Affairs. A complete listing of individuals, tribes or groups should be developed during the project initiation phase and coordination continued throughout project development.

### *Hazardous Waste/Materials*

An Initial Site Assessment (ISA) will be required to address the potential for hazardous waste. Potential exists for the following hazardous materials, depending on bridge structure material type, and other relevant factors: Aerial Deposited Lead (ADL), lead, treated wood waste, and asbestos. ADL risk is low to high, depending on specific location. For areas where a high risk is identified, a Preliminary Site Investigation and materials collection and testing will be required. The PSI would identify and provide methods to mitigate identified hazardous materials.

### *Invasive Species*

Executive Order 13112 requires that any Federal action may not cause or promote the spread or introduction of invasive species. Federal agencies often request weed-free treatments and native seeds for erosion control plans on the public lands and treatment of construction equipment to reduce the spread of noxious weeds and invasive plant species. These conditions would most likely be requested in conjunction with Special Use Permits, temporary construction easements, and timber contract conditions.

### *Right-of-Way Relocation or Staging Area*

Material sites, disposal sites, right of way utilities and right of way to be acquired have not been identified or located for the planning study. These areas, which must be identified prior to initiating environmental studies, will require complete environmental evaluation as part of any proposed project. Also, lands owned by a governmental agency may require special use permits and additional coordination to address that agency's environmental requirements.

### *Wetlands*

A delineation of jurisdictional wetlands and waters of the United States will be performed during the environmental studies. Executive Order 11990 requires an avoidance alternative analysis for wetland impacts unless there is no practicable alternative available. In addition, impacts to waters of the U.S. and wetlands from the project and any temporary access roads will need to be quantified and appropriate mitigation implemented. Wetlands exist within and along all of the potential options. It will be necessary to set aside adequate funding to mitigate for impacts and to provide resources to prepare supporting analyses to wetlands impacts as projects develop. Avoidance and minimization efforts will need to be documented to support the preferred alternative design and in compliance with laws and regulations.

## *Biological Resources*

Biological studies include various wildlife taxonomic groups such as invertebrates, amphibians, reptiles, birds, and mammals; botanical native and invasive species issues; fisheries; and wetlands. The presence of threatened and endangered species will require specialized surveys and resource agency permits and coordination. Wildlife connectivity and movements are important issues to address. Bioacoustics impacts on wildlife are an emerging issue that may be considered during studies. All projects must include an evaluation at the project initiation stage to determine the potential to impact or affect biological resources, including any endangered or threatened species that may be affected. The Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA) are the Federal and State laws to enforce protection of threatened and endangered species.

**General biological concerns in the vicinity of the TCR study options:**

Salmonids**.** Listed salmonids, Central Valley spring-run Chinook salmon and Central Valley steelhead, are present in many of the west and east side streams. Most of these streams are also designated critical habitat for one or both of these species. Additionally, the Sacramento River supports Sacramento River winter-run Chinook salmon and critical habitat for that species. Section 7 consultation would be required for any work involving these species or critical habitat.

Essential Fish Habitat – The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires Federal agencies to consult with National Marine Fisheries Service if a proposed action may adversely affect Essential Fish Habitat. Impacts to EFH are usually evaluated in the Biological Assessment for the Section 7 consultation.

VELB. Elderberry, the obligate host plant for the Valley elderberry longhorn beetle (VELB), is found throughout riparian habitats. Generally growing within riparian along streams, any impacts to elderberry plants will require Section 7 consultation with the US Fish and Wildlife Service.

California red-legged frog. Site assessments for California red-legged frog (CRF) habitat have been required by USFWS on projects within Tehama County. Therefore, any work may need a habitat site assessment and subsequent surveys if the site assessment shows good habitat for CRF. Section 7 consultation may be required if surveys are required.

Yellow-billed cuckoo. This state listed endangered species is known to occur within large tracts of riparian forest. The furthest north that nesting is known at this time is just upstream of Kopta Slough.

Vernal pools – Vernal pools may be present on undeveloped land. These extremely sensitive areas are habitat for several listed species. Both vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*) have been found within the State ROW.

Riparian. Riparian vegetation is present at stream crossings and at the Sacramento River. It is also present at other drainage features such as sloughs and ditches. Quantification of the amount of riparian habitat impacted and appropriate mitigation will be required. Every effort should be made to minimize impacts to riparian.

Wetlands and other waters. Wetlands and other waters are present throughout the area of the alignments. Waters include the streams the proposed alignments cross, as well as other drainages

and waterways that have a significant nexus. A delineation of jurisdictional wetlands and other waters would be required.

Rare Plants – A rare plant survey will be required. Rare plants, including hairy Orcutt grass (*Orcuttia pilosa*) and slender Orcutt grass (*Orcuttia tenuis*), are known to occur in vernal pools on the Vina Plains. Also, adobe lily (*Fritillaria pluriflora*) is known to occur in the vicinity of the SR 99/South Avenue intersection.

**Specific concerns regarding the study options:**

Common to All Options:

Land between the Tehama/Butte County line and South Avenue is in the Vina Plains and is arguably one of the most sensitive areas within Tehama County. Both sides of the existing SR 99 right of way are owned by the Nature Conservancy in order to preserve vernal pools and the unique assemblage of plant and animal species associated with them. Listed invertebrates and rare plants are known to occur within the existing right of way and in the adjacent areas. Since all study options are similar in this area (utilize the existing SR 99 alignment/right of way), there should not be any substantial difference in potential impacts and/or required mitigation in this area.

Existing SR 99:

A current FESA/CESA listing follows in Attachment 1 that identifies species and/or their habitat that may be found within or near the existing SR 99 right of way. Where a Special Status Species or their habitats are present and have potential to be impacted, appropriate mitigation measures are required be implemented or avoidance alternatives identified and included with the project features. The listing in Attachment 1 is not intended to be all-inclusive, but rather to provide general information on the current FESA and CESA species and habitat that have likelihood to occur within the study corridors. It does not include several other analyses that will be undertaken with future projects including rare plant studies and other related studies.

South Avenue:

The Department does not have current FESA/CESA information for South Avenue, however, the "general biological concerns" listed previously are applicable to South Avenue, especially in the vicinity of the Sacramento River. The same survey, study and mitigation standards that apply to existing SR 99 would apply to projects on South Avenue if it were upgraded to highway standards.

Potential New Alignment Corridor:

In addition to the "general biological concerns" listed previously, the following table identifies the potential for biological resources associated with more northern or southern locations for the potential new alignment corridor. The same survey, study and mitigation standards that apply to existing SR 99 would apply to a project or projects in a new alignment corridor.

| Issue | Northern | Southern |
|---|---|---|
| Sacramento River crossing | Yes | Yes |
| Listed salmonids in other streams | Yes | Yes |
| Critical habitat for salmonids | Yes | Yes |
| Essential Fish Habitat (EFH) | Yes | Yes |
| Valley elderberry longhorn beetle (VELB) | H | M |
| California red-legged frog | M | L |
| Yellow-billed cuckoo | L | H |
| Riparian impacts | Yes | Yes |
| Vernal pools | Yes | Yes |
| Wetlands & other waters | Yes | Yes |
| Rare plants | Yes | Yes |

Yes – Known to occur
L – lower probability of occurrence, M – medium probability, H – Higher probability
All corridors have potential to impact vernal pools – especially at Vina Plains

### *Potential Mitigation*

Mitigation for temporary and permanent impacts to sensitive biological resources (wetlands, riparian vegetation, regulated plants and animals) will be required. Mitigation for impacts to waters of the United States will be required where improvements are undertaken at jurisdictional waters. Construction windows will most likely be required for mitigation, and temporary bat roosts may be required for bats displaced by construction disturbance when bridge structures are planned as part of the overall scope of work. Avoidance of swallows nests, or nest exclusion netting may be required on structures.

Mitigation costs are typically up to ten percent of the project cost. For this project, mitigation could include costs associated with archaeological or historical mitigation, swallow and bat exclusion, restricted construction scheduling, wetlands mitigation, habitat enhancement, habitat restoration, or habitat replacement; the cost of which will be estimated at the time of project initiation stage and as other studies are completed. Other mitigation that will most likely be required includes fish passage improvements, retrofitting or over-sizing culverts/box culverts/bridge structures, etc. to accommodate small and large mammals for safer passage over or under the freeway. As mitigation costs compound for protection of species, cultural resources, community, economic, and farmland impact off-sets, resource agency compensation and mitigation, etc., it may prove beneficial to analyze other design options, such as large viaduct crossings to minimize impacts to the surrounding resources and permanent impacts to current undeveloped and undisturbed lands.

### *Permits*

Permits from the State Department of Fish and Game (1601), U. S. Army Corps of Engineers (an individual 404 Permit could be required because wetland/waters impacts may exceed the threshold acreage), and the Regional Water Quality Control Board (401) will be required. Additional permits for the material site and disposal site may be required. Work within public lands managed by the USFS, BLM, or other resource agencies normally require additional permit approvals; it may be advantageous to acquire a DOT Easement through areas prior to, or in conjunction with a project.

## Attachment 1: Special Status Species Potentially Occurring in the Vicinity of SR 99

| Common Name (*Species Name*) | Status** Fed CA | Typical Habitat | Likelihood of Occurrence |
|---|---|---|---|
| Invertebrates | | | |
| Conservancy fairy shrimp (*Branchinecta conservatio*) | E/-- | Large, deep vernal pools in annual grassland. | Likely in vicinity of Seg 1 & 2 |
| Vernal pool fairy shrimp (*Branchinecta lynchi*) | T/-- | Vernal pools; also found in sandstone rock outcrop pools. | Known from Seg 1 & 2 |
| Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) | T/-- | Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant. | Known from Seg 3, 4, 5 & 6 |
| Vernal pool tadpole shrimp (*Lepidurus packardi*) | E/-- | Vernal pools and ephemeral stock ponds. | Known from Seg 1 & 2 |
| Fish | | | |
| River lamprey (*Lampetra ayresi*) | --/SSC | Small freshwater tributary streams Sacramento/San Joaquin River systems; San Pablo Bay. | Likely at stream crossings in all segments. |
| Green sturgeon (*Acipenser medirostris*) | T/-- | Spawns only in the Sacramento River. | Known at Sacramento River crossing in Seg 6 |
| Sacramento River winter-run chinook salmon (*Oncorhynchus tshawytscha*) | E/E | Spawns only in the Sacramento River. | Known at Sacramento River crossing in Seg 6 |
| Chinook salmon - Central Valley spring-run ESU. (*Oncorhynchus tshawytscha)* | T/T | Sacramento and San Joaquin Rivers and their tributaries. | Known from SR 99 stream crossings in all segments, critical habitat also present. |
| Central Valley fall/late fall-run Chinook salmon | SC/SSC | Spawns in deeper waters, in main stream channels. Sacramento and San Joaquin Rivers and their tributaries. | Known from SR 99 stream crossings in all segments. |
| Steelhead - Central Valley ESU (*Oncorhynchus mykiss*) | T/-- | Sacramento River and tributaries. | Known from SR 99 stream crossings in all segments, critical habitat also present. |
| Hardhead (*Mylopharodon conocephalus*) | --/SSC | Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Low to mid-elevation streams. | Likely at SR 99 stream crossings in all segments. |
| Sacramento splittail (*Pogonichthys macrolepidotus*) | SC/SSC | Slow moving river sections, dead end slough; require flooded vegetation for spawning and foraging for young. | Likely at SR 99 stream crossings in all segments. |
| Amphibians | | | |
| California red-legged frog (*Rana aurora draytonii*) | T/SSC | Permanent and semi-permanent aquatic habitats, such as creeks and cold water ponds. | Very unlikely, considered extirpated from the valley floor. |
| Foothill yellow-legged frog | --/ SSC | Creeks or rivers in woodlands or forests | Unlikely. |

| Common Name (*Species Name*) | Status** Fed CA | Typical Habitat | Likelihood of Occurrence |
|---|---|---|---|
| (*Rana boylii*) | | with rock and gravel substrate and low overhanging vegetation along the edge. | |
| Western spadefoot toad (*Spea hammondii*) | --/SSC | Primarily terrestrial, rainfall pools, such as vernal pools in annual grasslands and oak woodlands. Range includes Central Valley. | Unlikely. |
| Reptiles | | | |
| Northern Pacific pond turtle (*Actinemys marmorata marmorata*) | --/SSC | Woodlands, grasslands, and open forests; occupies ponds, marshes, rivers, streams, and irrigation canals. | Possible at all SR 99 stream crossings. |
| Birds | | | |
| Tricolored blackbird (*Agelaius tricolor*) | --/SSC | Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. | Unlikely. |
| Western burrowing owl (*Athene cunicularia hypugaea*) | --/SSC | Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows. | Unlikely. |
| Swainson's hawk (*Buteo swainsonii*) | --/T | Nests in oaks or cottonwoods in or near riparian. Lower Sacramento Valley. | Unlikely. |
| Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) | C/E | Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging. | Unlikely. |
| Yellow warbler (*Dendroica petechia brewsteri*) | --/SSC | Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders. Nests all over California, except the Central Valley. | Possible in riparian habitats at SR 99 stream crossings. |
| White-tailed kite (*Elanus leucurus*) | --/FP | Low foothills or valley areas with valley or live oaks, riparian areas, marshes near open grasslands. | Most likely in Seg 1 & 2 |
| Bald eagle (*Haliaeetus leucocephalus*) | --/E, FP | In western North America, nests and roosts in coniferous forests within 1.6 km of a lake, reservoir, stream, or the ocean. | Unlikely. |
| Yellow-breasted chat (*Icteria virens*) | --/SSC | Nests in dense riparian habitats dominated by willows, alders, Oregon ash, tall weeds, blackberry vines, and grapevines. | Possible in riparian at SR 99 stream crossings. |
| Osprey (*Pandion haliaetus*) | --/SSC | Nests in snags, trees or utility poles near the ocean, large lakes, or rivers with abundant fish populations. | Unlikely. |

| Common Name (*Species Name*) | Status** Fed CA | Typical Habitat | Likelihood of Occurrence |
|---|---|---|---|
| Bank swallow (*Riparia riparia*) | --/T | Nests in bluffs or banks, usually adjacent to water, where the soil consists of sand or sandy loam. | Unlikely. |
| Mammals | | | |
| Pallid bat (*Antrozous pallidus*) | --/SSC | Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood habitats in northern California. | Possible night roosting at SR 99 bridges. |
| Pale Townsend's big-eared bat *(Corynorhinus townsendii pallescens)* | --/SSC | Mesic habitats; gleans insects from brush or trees and feeds along habitat edges. Range includes Central Valley. | Possible night roosting at SR 99 bridges. |
| Spotted bat (*Euderma maculatum*) | --/SSC | Wide variety of habitats, mainly associated with cliff and canyon habitat. | Unlikely. |
| Western red bat (*Lasiurus blossevillii*) | --/SSC | Roosting habitat includes forests and woodlands, primarily in trees, often adjacent to stream and fields. | Unlikely. |
| Plants | CNPS | | |
| Hoover's spurge (*Chamaesyce hooveri*) | T/-- 1B.2 | Vernal pools. | Likely in Seg 1 & 2 |
| Silky cryptantha (*Cryptantha crinita*) | --/-- 1B.2 | Sandy and gravelly creek bottoms. | Unlikely. |
| Adobe lily (*Fritillaria pluriflora*) | --/-- 1B.2 | Annual grasslands on adobe soils. | Known to occur in Seg 1 |
| Boggs Lake hedge-hyssop (*Gratiola heterosepala*) | --/E 1B.2 | Vernal pools and margins of seasonally receding ponds and lakes. | Unlikely. |
| Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*) | --/-- 1B.2 | Vernal pools. | Unlikely. |
| Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*) | --/-- 1B.1 | Seasonally flooded sites such as vernal pools, ephemeral drainages, and seeps in woodland and grassland communities. | Possible. |
| Legenere (*Legenere limosa*) | --/-- 1B.1 | Deep, seasonally wet habitats such as vernal pools, ditches, marsh edges, and river banks. | Unlikely. |
| Red-flowered lotus (*Lotus rubriflorus*) | --/-- 1B.1 | Cismontane woodland, Valley and foothill grassland. | Possible. |
| Hairy Orcutt grass (*Orcuttia pilosa*) | E/E 1B.1 | Vernal pools. | Known to occur in vicinity of Seg 1. |
| Slender Orcutt grass (*Orcuttia tenuis*) | T/E 1B.1 | Bottom of vernal pools, mostly at sites underlain by volcanic substrates. | Known to occur in vicinity of Seg 1. |

## Special Status Species Potentially Occurring in the Tehama 99 Corridor

| Common Name (*Species Name*) | Status** Fed CA | Typical Habitat | Likelihood of Occurrence |
|---|---|---|---|
| Ahart's Paronychia (*Paronychia ahartii*) | --/-- 1B.1 | Vernal swales and margins of vernal pools, in clay soils. | Known to occur in vicinity of Seg 1. |
| Sanford's arrowhead (*Sagittaria sanfordii*) | --/-- 1B.2 | Sloughs and sluggish streams with silty or muddy substrate, associated with emergent aquatic marsh vegetation. | Unlikely. |
| Greene's tuctoria (*Tuctoria greenei*) | E/R 1B.1 | Bottoms of large vernal pools. | Known to occur in vicinity of Seg 1 & 2 |

**** Status Explanations:**

**Federal**

-- No status definition.
E Endangered
T Threatened.
SC Species of Concern

**State**

-- No status definition.
E Endangered.
T Threatened.
FP Fully Protected
SSC Species of Special Concern.

**California Native Plant Society**

1B Rare, threatened, or endangered in California and elsewhere.

**Threat Ranks**

0.1 Seriously threatened in California.
0.2 Fairly threatened in California.

## Conclusion

Based on a variety of existing conditions (geographical, people, community, economic, farmland, biological and cultural resource potential, conceptual studies, long-range study period, environmental factors, etc.), it is not easily concluded that one future option may have less net impacts over another option. It appears that a benefit to one resource would be at the cost of another resource as far as the options proposed. Therefore, there is not a preferred option from an environmental perspective.

# APPENDIX F

## Public Outreach and Tribal Fact Sheets

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# State Route 99
# Transportation Concept Report

## *Public Outreach and Tribal Fact Sheets*

## Introduction

This section presents information on the outreach performed along the corridor. State and federal laws require that public involvement be a part of transportation decision-making. While such laws are meant to promote fairness and equity in decision-making, Caltrans realizes that there are recognizable benefits to involving the public early and continuously. The benefits included increased credibility, strengthened public support and trust, involved public in project development, and developed projects using public resources efficiently with less need for re-evaluation.

Public involvement for route and corridor specific planning offers unique opportunities for Caltrans to obtain and use region-wide community input about a transportation corridor. Planning efforts must take care to address individual community issues along with region-wide issues. These issues can range from local traffic flow, economic/business development, traveler information systems, regional mobility, and safety.

Included in this appendix are the following key sections or attachments:

- Outreach Plan
- Outreach Methods
- Summary of Outreach
- Summary of Draft Comments
- Tribal Governments Information and Community Fact Sheets
- SR 99 Public Workshop Flier-English
- SR 99 Public Workshop Flier-Spanish
- Public Workshop News Release for SR 99
- Agenda for SR 99 Public Workshop
- SR 99 Workshop Questions
- SR 99 Public Workshop Summary Notes

**PUBLIC WORKSHOP. Community members listening to information about SR 99 in Tehama County.**

**COMMUNITY INPUT. Community members discussing and responding to questions regarding SR 99.**

- Article Example-“Future of Hwy 99 up for discussion” from North State Briefs March 15, 2009 in the ***Record Searchlight***
- Article Example-“Drivers give input on Highway 99” by Julie Zeeb from March 18, 2009 in the ***Red Bluff Daily News***
- News Release for Presentations Schedule for Draft State Route 99 Plan
- Article Example-“Highway 99 presentations begin Tuesday” from June 20, 2009 in the ***Red Bluff Daily News***
- Article-“20-year plan weighs Highway 99 options” by Julie Zeeb from July 27, 2009 in the ***Red Bluff Daily News***
- Article “State Route 99 presented” by Julie R. Johnson from July 11, 2009 in the ***Corning Observer***
- Editorial (Positive Point column) by Richard Mazzuchhi “Highway 99 is not so fine” from July 13, 2009 in the ***Red Bluff Daily News***


**MAP OF SR 99. A facilitator is using map to show points on SR 99.**

## Outreach Plan

The key objectives of the SR 99 outreach plan included:

- Gain input and ideas for the SR 99 TCR and provide forums for stakeholders to comment on the corridor.
- Identify common needs from the diverse stakeholder groups.
- Provide general and technical information about the corridor to interested parties.
- Clearly identify and communicate future segment improvement needs.
- Generate confidence and credibility in the process and the final plan.

The outreach involved stakeholders from external, semi-external, and internal audiences.


**OUTREACH. Reader board at Lassen View School listing upcoming workshop.**

***External Audiences***

- General Public (for example commuters, recreational travelers, and school children).
- Community-Based Organizations (for example, Chambers of Commerce, Senior Groups, and Environmental Clubs).
- Economic Interest Groups (for example, businesses along SR 99, trucking/freight providers, manufacturers, and retailers).

***Semi-External Audiences***

- Regional Transportation Planning Agencies (RTPAs)/Transportation Commissions
- Technical Advisory Committees (TACs)
- Cities
- Counties
- Tribal Governments
- Elected Officials
- Other Governmental Agencies (examples include California Highway Patrol, California Fish and Game, and the United States Forest Service).

***Internal Audiences***

Caltrans units/functions involved in development of the TCR include:

- District 2 Executive Staff
- District 2 functional units: Traffic, Maintenance, Design, Right of Way, Environmental, Regional Planning, Community Planning, and Advance Planning.
- Caltrans District's 3, 6, and 10
- Caltrans Headquarters Programs


**PRESENTATION. The Project Manager for SR 99 is presenting information regarding SR 99 to the Tehama County Transportation Commission.**

## Outreach Methods

The outreach methods used during development of the SR 99 TCR included:

- **Internet Website.** Information regarding the upcoming public workshops. presentations, workshop notes, and the draft TCR were available at the following Caltrans website:

  http://www.dot.ca.gov/dist2/planning/concept_rpts.htm

  Additionally, the website link was placed on the Tehama County website.

- **Agency Presentations.** Presentations to the Tehama County Transportation Commission, Tehama County Board of Supervisors, City Councils for Corning, Red Bluff, and Tehama allowed for the information to be provided to elected officials in an open public forum.

- **Tribal Consultation.** Given that this route passes through or near, Tribal ancestral lands of three Federally Recognized and two Non-Federally Recognized Tribal Governments, tribal consultations occurred through phone calls, mail, and email. Attached are the Information and Community Fact Sheets for these Tribal Governments.

- **Media Outreach.** Outreach through the media was done when upcoming presentations or public workshops were on the horizon. The Caltrans District 2 Public Information Office assisted with the media outreach process. Media Outreach included public service announcements and news stories with radio stations, newspapers, and television broadcasts. The following media carried this public service announcement: KRCR Channel 7 News--Redding, KNVN Channel 24 News-Chico, Red Bluff Daily News, Chico Enterprise Record, Record Searchlight, Redding Radio, and Deer Creek Broadcasting. Deer Creek Broadcasting has a Spanish radio station and read the Spanish translation on the air. Included are the media releases, examples of the releases in the Redding Record Searchlight and Red Bluff Daily News, and one of the follow-up articles in the Red Bluff Daily News after the first workshop.

- **Workshops.** There were two workshop scheduled in the community of Los Molinos. The workshops were held to educate the public about the TCR process, to learn what interests the community has regarding the route, and to help develop a future plan for SR 99. Fliers were made in both English and Spanish for the workshops.
  1. The first workshop had 31 attendees. The meeting had table facilitators asking a series of questions. The answers to these questions were then summarized in meeting notes and sent to attendees and other interested parties. Documents attached from this workshop include: SR 99 TCR Workshop Fliers (English and Spanish), Agenda for SR 99 TCR Public Workshop, SR 99 Workshop Questions, and SR 99 TCR Public Workshop Summary Notes.
  2. The second workshop had 20 attendees. The meeting had a presentation on the first workshops' comments. Documents attached from this workshop include: Draft SR 99 TCR Workshop Flier, and Agenda for the Draft SR 99 TCR Workshop.

- **Mailing List/E-mail List.** For the SR 99 TCR project, a mailing list of 100 contacts was used. The list was developed through stakeholder interviews; Internet research; and previous Department lists, comprised of CBOs, ethnic-based organizations, service clubs, elected officials, and other individuals and organizations interested in transportation planning. Additionally, various contacts were emailed information about the SR 99 TCR process. Comment cards at the public workshops allowed for additional contacts to be added to this list.

- **Additional Outreach.** Prior to the public workshops in March and May, the Lassen View School Newsletter listed the public workshop and contact information. Additionally, the school placed both the workshops information on the reader board. Staff from Caltrans walked around the community of Los Molinos and distributed fliers to local businesses and community members. Fliers in both Spanish and English were placed on bulletin boards and windows.

## Summary of Outreach

| Date | Outreach (type) |
|---|---|
| **2008** | |
| November 20 | SR 99 Bond Project in Los Molinos (workshop) |
| December 18 | Tehama County Transportation Commission staff consultation (phone call and email) |
| **2009** | |
| January 12 | Tribal Governments Consultation (letter) |
| February 5 | Tehama Technical Advisory Committee (meeting) |
| March 3 | Tehama County Transportation Commission (presentation at meeting kick-off for the SR 99 TCR report) |
| March 16 | **Public Workshop in Los Molinos** (presentation and facilitation at workshop) |
| April 1 | Tehama Technical Advisory Committee (meeting) |
| April 21 | Tehama County Transportation Commission (presentation at meeting-Summary of Public Workshop notes and Base Traffic Volumes and Level of Service) |
| May 7 | Tehama County Technical Advisory Committee (presentation of Draft SR 99 TCR) |
| May 11 | Caltrans District 2, Executive Staff (presentation of Draft SR 99 TCR) |
| May 18 | **Public Workshop In Los Molinos** (presentation of draft document) |
| May 19 | Tehama County Transportation Commission (presentation at meeting of Draft SR 99 TCR) |
| June 4 | Tehama County Technical Advisory Committee (presentation of Draft SR 99 TCR) |
| June 23 | Corning City Council (presentation at meeting of Draft SR 99 TCR) |
| June 30 | Tehama County Transportation Commission (presentation at meeting of Draft SR 99 TCR) |
| June 30 | Tehama County Board of Supervisors (presentation at meeting of Draft SR 99 TCR) |
| July 7 | Red Bluff City Council (presentation at meeting of Draft SR 99 TCR) |
| June 14 | Tehama City Council (presentation at meeting of Draft SR 99 TCR) |
| July 28 | Tehama County Transportation Commission ([presentation of Final SR 99 TCR) **Resolution of Acceptance Adopted** |
| July 31 | Caltrans District 2, Executive Staff (presentation of Final SR 99 TCR) **Approved** |

## Summary of Comments on Draft Document

The following is a summary of comments received when the draft TCR was released to the public and governmental agencies on May 19, 2009:

1. **Outreach Process.** All governmental agencies and Tribal Governments affected by SR 99 should be involved if a more detailed study is undertaken.
2. **State Route 99 Study Concepts Map.** Several comments expressed concern regarding the location of the arrow reflecting the Potential New Alignment to I-5 because it was interpreted as indicating an actual alignment.
3. **Potential New Alignment to I-5.** Suggestions were made to select the new concept because of concern that traffic growth and congestion will continue. This concept would lessen traffic on the existing SR 99 and SR 36. It may have fewer right of way impacts. By selecting this concept, Los Molinos could become a more walkable and bike-friendly community.
4. **South Avenue Alignment.** Suggestions were made to select the South Avenue concept because the South Avenue/I-5. interchange is being improved and can handle more vehicles. Additionally, South Avenue is a path that many trucks are already using to connect to I-5.
5. **Additional Alignment Concepts.** Suggestions to study an alignment to the east of existing SR 99 in Los Molinos. This would go through the town of Los Molinos. Another suggested made was to use Aramayo Way and would go through the City of Tehama to connect to I-5.

CITY OF CORNING
HOME OF THE QUEEN OLIVE

# City of Corning

794 Third St. Corning, CA 96021 (530) 824-7020 Fax (530) 824-2489

Kathy Grah
Caltrans-District 2
Office of System Planning-MS 3
P.O. Box 496073
Redding, CA 96049-6073 (96001)

May 25, 2009

Re: Draft SR 99 TCR

Dear Kathy,

Thank you for providing the emailed copy of the latest draft of the SR 99 Transportation Concept Report for our review. We appreciate the opportunity to respond. Our comments are as follows:

1. Page 53, second paragraph under "Background". In our opinion, this summary is just too concise to tell the whole story about the 1960's plan for Highway 99. Please expand to explain how the freeway designation was to require complete realignment and a new river crossing for 99. Who knows, in another 30 years there may be scant evidence of that plan. We think it's important to memorialize it.

2. Page 54, Figure 4. The "enlarging" circular dots are OK, but at the TAC meeting, I was suggesting a wide single-line "Planning" arrow like this shown to the right. Also, showing three separate round dot lines is a bit confusing, because it's the same quantity (3) as the alternatives presented, but clearly not intended for alignment. I have to admit that when I first looked at the figure I thought that two of the "round dotted lines" needed relocating to fit the "current" and "South Avenue alignments", respectively.

3. Page 56, Table 18. We question the "High" Opening Day cost of the South Avenue Alignment. This conclusion comes from the analysis on Page 57, which we believe to be flawed.

   First and foremost, like the current alignment, South Avenue is currently "used". In fact, the route is used on a daily basis by tanker trucks transporting fuel between the

supplier in Chico to our three truckstops.

Second, while there may be infrequent South Avenue flooding in the Woodson Bridge area; there are similar flooded stretches of the current 99 alignment in the Dairyville area.

Third, are there limiting load restrictions affecting the South Avenue bridge structures? Are these factors weight or size related?

Fourth, we believe there are fewer driveway encroachments along the subject section of South Avenue, than on the current 99 alignment.

For those reasons, we believe the Opening Day Cost for the South Avenue Alignment should be either "Low" or "Moderate", instead of "High".

4. Page 60 "Travel Time Info" in upper right hand quadrant. The description doesn't make sense. Should read "From I-5 in *(currently reads "to")* Red Bluff to the South Avenue/SR 99 intersection".

5. Page 60 Operational Info. Unsure why the 2057 date describes "congestion and delays in Corning". Currently there's about 1700 feet of South Avenue frontage within Corning and east of I-5. That portion of the City is within our "Highway 99-W Specific Plan" area. We expect to expand that area to the east as the City grows. The design elements of the Specific Plan suggest limited access onto the adjacent arterials. So, we expect to have considerable discretion and will limit driveway encroachments. The combination of limited driveways, 4 travel lanes, a median turn lane, and new traffic signals should eliminate traffic congestion-or at least achieve our Circulation Element objective LOS "C".

Thanks again for the opportunity to respond. Please call me if you have any questions. I can be reached at 824-7025, or you may email me at jbrewer@corning.org.

Sincerely,

John L. Brewer, AICP
Public Works Director

cc: Mayor Gary Strack
City Manager Steve Kimbrough
Gary Antone, TC Public Works Director

# CITY OF RED BLUFF

555 Washington Street Red Bluff, California 96080 (530) 527-2605 Fax (530) 529-6878 www.ci.red-bluff.ca.us


July 8, 2009

Tim Huckabay
CalTrans District 2
Deputy Director
P.O. Box 496073
Redding, CA 96049-6073

**SUBJECT: SR 99 TRANSPORTATION CONCEPT REPORT**

Dear Mr. Huckabay:

At the July 7, 2009 City Council meeting, the City Council approved the submittal of the following comments for inclusion in the final SR 99 Transportation Concept Report:

1. No final route shall be selected without additional consultation with Red Bluff City staff and comments from the Red Bluff City Council.
2. The City shall be engaged in all discussions as to the disposition of SR 99 should an alternate route be selected.
3. That should the existing alignment be modified and/or abandoned, that the new route alignment/configuration connect to Interstate 5 within or in close proximity to the Red Bluff City Limits.
4. That Caltrans engages all entities to attempt to reach a consensus on any preferred alternatives.
5. Include the City of Red Bluff on page 63 Disadvantages for Concept: No. 3 to read as follows- Potential business loss to the City of Corning and City of Red Bluff along with other communities State Route 99 passes through.

The City of Red Bluff appreciates the opportunity to submit comments for inclusion in the Final SR 99 Transportation Concept Report.

Very truly yours,

Wayne Brown
Mayor

c: Kathy Grah, CalTrans – District 2
City Councilmembers

# Greenville Rancheria

P.O. Box 279 / 410 Main Street • Greenville, CA 95947 • 530.284-1690 • Fax 530.284-1692


June 17, 2009

Department of Transportation
Office of System Planning
1657 Riverside Drive
P.O Box 496073
Redding, CA 96049-6073

Attn: Kathy Grah

**Re: Updating the Transportation Plan for State Route 99 in Tehama County**

Dear Ms. Grah,

I am writing in response to your letter dated May 21, 2009, indicating an updated transportation plan for State Route 99 in Tehama County.

The Tribe is very concerned with the preservation of any Native American Archaeological or Cultural Sites within the project area, or which may be impacted as a result of project activities (pursuant to 14 CCR § 895.1) These sites include, but are not limited to: village sites, camp sites, petroglyphs, prehistoric trails, quarries, milling stations, cemeteries, ceremonial sites, or traditional cultural sites and properties. Please notify Greenville Rancheria if and when sites are to disturbed during construction.

We appreciate your notification, and if there is any assistance that I can provide during this process, please do not hesitate to contact me.

Thank you,


Lacie Miles
Greenville Rancheria Environmental Technician/NAGPRA Coordinator
lmiles@greenvillerancheria.com

## GREENVILLE RANCHERIA
## INFORMATION AND COMMUNITY FACT SHEET

**STATUS: Federally Recognized**

Due to the California Rancheria Act of 1958, the original Greenville Rancheria (275 acres) and Tribal members were terminated from Federal Recognition. In 1983, a U.S. District Court for the Northern District of California (*Tillie Hardwick v. United States of America*.) ruled that the failure of the BIA to comply with its obligations under the California Rancheria Act invalidated the Act. As a result, the Greenville Rancheria and 17 other California tribes were restored as federally recognized Indian tribes. The Greenville's Rancheria Tribal affiliation is Maidu, Wintu, Pit River and Washoe Indian.

**LAND BASE**

Land Status: The Tribe has no land in Trust with the Federal Government. At the original Rancheria site, the old church is still standing but is in non-native ownership. In addition the Tribe also holds 11.5 acres of land in fee status in the city of Greenville where residential/commercial/tribal offices and clinics are located, and 15 acres in Red Bluff that is used for economic development/clinics. Currently Greenville Rancheria has three fee-to-trust applications pending.

In addition to a Tribal fee land, the Tribe claims ancestral territories in Tehama, Plumas, Sierra and parts of Butte, Yuba, Glenn and Shasta counties, the territories represent the areas that were once inhabited by the Tribes to camp, hunt, and fish, as well as gathering of vegetation for food consumption and basketry material, sacred ceremonial and burial sites.

**TRIBAL GOVERNMENT**

The Tribe falls under the Indian Reorganization Act of 1934. The Tribal Council/Business Council meets every second Wednesday of the month, the elected Council is made up of a Tribal Chairperson, Vice Chair, Secretary, Treasurer, and Members at large. The membership meetings are on the 2nd Saturday of the month, meetings are limited to members of the Tribe. There are 150 +/- enrolled Tribal members.

**Services**- The Tribe runs a medical and dental facility in Greenville and Red Bluff to serve tribal and non-tribal members.

## PASKENTA BAND OF NOMLAKI INDIANS
## INFORMATION AND COMMUNITY FACT SHEET

### STATUS: Federally Recognized

Due to the California Rancheria Act of 1958, the Paskenta Band of Nomlaki Indians (Wintu) experienced termination of Federal recognition in 1959: the Rancheria was then sold to private parties. Despite the denial of federally recognized tribal status, the Paskenta Band maintained its tribal identity and culture while it worked for restoration as a Federally Recognized Native American tribe. On November 2, 1994, Congress enacted the Paskenta Band Restoration Act ("Restoration Act") and the Tribe received full tribal status.

### LAND BASE

The land base is a 1898 +/- acre Reservation which is located in Tehama County, approximately five miles south of Corning, California, and is adjacent to Interstate 5, the Tribe recently purchased a 320 acre parcel adjacent to the reservation, and has petitioned to the Bureau of Indian Affairs for Trust land status.

In addition to Tribal Trust land, the Tribe can claim ancestral boundaries. In Tehama and adjacent counties in the Northern Sacramento Valley, the territories represent the areas that were once inhabited by the Tribe to camp, hunt, and fish, as well as gathering of vegetation for food consumption and basketry material, sacred ceremonial and burial sites.

### TRIBAL GOVERNMENT

The Tribe falls under the Indian Reorganization Act of 1934. The Tribes General Membership is 240 members were all enrolled members are over 18 years old. The Tribes initial Constitution and bylaws were adopted in December 18, 1993. The Tribal Council consists of a Tribal Chair, Vice-Chair, Secretary and Treasurer.

The Tribe has developed a strong, diverse economic base for its 240 members and surrounding communities. There are now two hotels, a nightclub, traveler's center, and a hunting and fishing club at the Rolling Hills Casino. An RV park, gas station, and an 18-hole golf course opened in 2007. In addition, the tribe has helped fund health care, public safety, education and other programs in the area while it also has pursued other economic development opportunities. Rolling Hills is one of the county's largest employers and has created additional jobs every year of its operation.

## REDDING RANCHERIA
## INFORMATION AND COMMUNITY FACT SHEET

**STATUS: Federally Recognized**

The Bureau of Indian Affairs (BIA) purchased the land that is now considered the Redding Rancheria in 1922. The purpose of this purchase was to provide a place for homeless Indians to camp and live. The Rancheria includes Indians from not just one tribe but Indians of Pit River, Wintu and Yana descent. Even prior to the purchase of the land by the government for Indian homes, many Indians gathered in the area to fish for salmon in Clear Creek.

In 1958, Congress enacted the California Rancheria Act and with this act the Redding Rancheria was terminated on July 6, 1959. The act set forth the distribution of assets of the Rancheria. As the years progressed the Rancheria was parceled off and sold to Indians and non-Indians alike. The government no longer recognized the Rancheria.

In 1983, a U.S. District Court for the Northern District of California (*Tillie Hardwick v. United States of America*) ruled that the failure of the BIA to comply with its obligations under the California Rancheria Act invalidated the Act. As a result, the Redding Rancheria and 17 other California tribes were restored as federally recognized Indian tribes.

In 1987 the restored Redding Rancheria formally adopted its Constitution, and membership roll of the Redding Rancheria, members of the Rancheria are all descendents of the 17 original distributees who owned land on the Redding Rancheria, commonly known as the “flat”, when the Tribe was re-recognized by the federal government in 1986.

**LAND BASE**

Redding Rancheria Land-base itself is 30.89 acres and is located adjacent to State Route 273, south of Redding. The Tribe has acquired an additional 150-acre parcel along Interstate 5 corridor, just south of Redding, and another 56 acres along I-5 in Anderson.

In addition to Tribal Trust land, the Tribe can claim ancestral territories in Shasta, and Trinity counties. The territories represent the areas that were once inhabited by the Tribes to camp, hunt, and fish, as well as gathering of vegetation for food consumption and basketry material, sacred ceremonial and burial sites.

**TRIBAL GOVERNMENT**

The Tribal government falls under the Indian Reorganization Act of 1934, The Constitution of the Redding Rancheria requires that to be a member of the Redding Rancheria you must be a lineal descendent of one of the original distributees. The Tribe starts with the general membership, consisting of 292 members, and meet at least every other month. The Tribal Council consists of seven elected officials, a Tribal-Chair and Vice-Chair, Treasurer, Secretary, with three Alternates, who meet when designated by the Tribal Council. The Tribal Council elections are held every year with staggered two year terms and Alternates every 1-year. All enrolled members are over the age of 18 years.

**Services** the Rancheria operates: the Tribal Governmental offices, the Redding Rancheria Headstart, the Redding Rancheria Health Clinic in Redding and Weaverville, Win-River Mini-Mart, Redding Rancheria’s Win-River Casino, and the Hilton Garden Inn.

## NON-FEDERALLY ACKNOWLEDGED TRIBES
## FACT SHEET

**STATUS: Non-Federally Recognized**
Along with the federally acknowledged tribes that are listed, there are many non-federally acknowledged tribes that have been terminated or unrecognized of federal status. Many non-federally acknowledged tribes do not have the benefit of living on federal trust lands, yet still retain their own governmental structures and functions. These tribes often represent distinct and separate cultures from the federally acknowledged tribes and they continue their cultural traditions and their interest in protecting cultural resources throughout their aboriginal territories.

In order for a tribe to receive federal acknowledgment/recognition, and the benefits it confers, the Tribe must prove their continuous existence since 1900, by means of anthropological, genealogical, and historical data. The Office of Federal Acknowledgment implements the administrative process and is within the Office off the Assistant Secretary- Indian Affairs of the Department of the Interior.

Tribes can achieve federal acknowledgement/recognition through these ways:

- restoration through Congress (if they were previously recognized)
- judicial process
- merging with an acknowledge/recognized tribe
- the administrative process

**STATUS OF APPLICATIONS:**

**TEHAMA**

| | |
|---|---|
| United Maidu Nation | Administrative Process |
| Wintu Tribe of Northern California | Administrative Process |

# NEWS RELEASE

**Date:** February 23, 2009 09-006
**District:** District 2 - Redding
**Contact:** Kathy Grah
**Phone:** 530-225-3236

**February 23, 2009**

**FOR IMMEDIATE RELEASE**

Public Workshop Scheduled for State Route 99 in Los Molinos

LOS MOLINOS- The California Department of Transportation (Caltrans) will host a public workshop on Monday, March 16, 2009 from 6:45 p.m. to 8:00 p.m. in the cafeteria at Lassen View School, 10818 Hwy 99 E, Los Molinos, CA 96055. The purpose of the event is to provide the public the opportunity to discuss future of State Route 99. This input will assist Caltrans in developing a long-range planning document for the route called a Transportation Concept Report.

This workshop is held in cooperation with the Tehama County Transportation Commission.

Caltrans welcomes any suggestions or comments the public may have regarding the proposed report. Representatives from Caltrans will be available to take comments and answer questions. There will be a formal presentation followed by an opportunity to talk about your interests. Comments or questions may be registered at the meeting, by telephone or by mail. Comments can be provided to Kathy Grah by phone at (530) 225-3236 or sent to Caltrans District 2, Attention: Kathy Grah, P.O. Box 496073, Redding, CA 96049-6073.

For individuals with disabilities, we will provide assistive services such as assistive listening devices, sign-language interpreting, real-time captioning, note-takers, reading or writing assistance, or training/meeting materials in Braille, large print, on audiocassette, or on computer disk. To obtain such services or copies in one of these alternate formats, please call or write, a minimum of 20 working days prior to the event, to request these needed reasonable modifications: Department of Transportation, Attn: Equal Employment Opportunity Officer, 1657 Riverside Drive, Redding, CA 96001. (530) 225-3425 Voice (530) 225-2019 TTY

*Caltrans is an equal opportunity agency.*

# # # #

***NOTE: An electronic version of this news release is available on the Internet at the following web address*:** http://caltrans2.info/roadinfo.htm

SLOW FOR THE CONE ZONE
CALTRANS

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*The California Department of Transportation and Tehama County Transportation Commission invite you to attend a Public Workshop.*

# PUBLIC WORKSHOP

**Monday, March 16, 2009**

**6:45pm-8:00pm**

**Lassen View Elementary School-Cafeteria**
**10818 Hwy 99 E**
**Los Molinos, CA**

## State Route 99 Transportation Concept Report

The purpose of the event is to provide the public the opportunity to discuss the future of State Route 99. There will be a formal presentation followed by an opportunity to talk about your interests.

Please attend this workshop and share your views with us. A Spanish language interpreter will be available at the meeting.

Light refreshments will be served.

**FOR MORE INFORMATION:**


**Public Information**
**530-225-3260**
**Project Manager**
**Kathy Grah**
**530-225-3236**
**kathy_grah@dot.ca.gov**


For individuals with disabilities, we will provide assistive services such as assistive listening devices, sign-language interpreting, real-time captioning, note-takers, reading or writing assistance, or training/meeting materials in Braille, large print, on audiocassette, or on computer disk. To obtain such services or copies in one of these alternate formats, please call or write, a minimum of 20 working days prior to the event, to request these needed reasonable modifications: **Department of Transportation, Attn: Equal Employment Opportunity Officer, 1657 Riverside Drive, Redding, CA 96001. (530) 225-3425 Voice (530) 225-2019 TTY**

Caltrans is an Equal Opportunity agency. Federal law prohibits discrimination.

El Departamento de Transportación de California y La Comisión del Transporte del Condado de Tehama los invitan a una junta

# JUNTA PUBLICA

**Lunes 16 de Marzo de 2009**

**6:45pm-8:00pm**

**En la Cafeteria de la Escuela Primaria Lassen View**
**10818 Hwy 99E**
**Los Molinos, CA**

Para información llame:


Kathy Grah

530-225-3236

kathy_grah@dot.ca.gov

Or

Sal Prieto

530-225-3368

sal_prieto@dot.ca.gov


## INFORME DEL CONCEPTO DEL TRANSPORTE DE LA RUTA ESTATAL 99


**El propósito de la junta es para darle al publico la oportunidad de discutir el futuro de la Ruta Estatal 99.**

**Hara una presentación formal seguida por una oportunidad de hablar de sus intereses.**

**Atienda por favor a esta junta publica y comparta sus opiniones con nosotros.**

**Un interprete estará disponible en la junta.**

**Agua y galletas serán servidas.**

# *March 16, 2009 State Route 99 Transportation Concept Report Public Workshop Summary Notes*

*These notes were taken and summarized from a Public Workshop on March 16, 2009 at Lassen View School. The purpose of the workshop was to provide the public an opportunity to discuss the future of State Route 99.*

There were 31 people in attendance at the meeting. Attendees included the public and representatives from California Department of Transportation, Dye Creek Preserve, Los Molinos Chamber of Commerce, Cal-Fire, Tehama County Planning, Tehama County Public Works, Tehama County Transportation Commission, City of Tehama, and City of Corning.

## STATE ROUTE 99 SUMMARY COMMENTS (Tehama County section)

### POSITIVES

- ❖ Beautiful scenery with orchards and fruit stands.
- ❖ Direct connection to the North or the South (no stop lights).
- ❖ Well-maintained and designed route.
- ❖ Like rural feel and that the route is not an expressway the entire way.
- ❖ Adequate passing lanes between South Avenue and Tehama/Butte County Line.
- ❖ Recent widened bridges great improvement.
- ❖ California Highway Patrol good enforcement.
- ❖ Orchards help reduce glare and make cooler in summer.
- ❖ A number of locations where drivers that know the route can pull over to let others pass.

### SAFETY

- Drivers speed up and use the center turn lane for passing in Los Molinos.
- No place to safely make a left or right hand turn.
- Can be hard to pass safely and legally.
- Drivers often pull out onto the route and have no lane to speed up in.
- People's driving habits are poor with some driving too fast and some driving too slow.
- People fall asleep on route and can cause accidents.

- It feels dangerous driving this route because of trees and utility poles too close to the roadway.
- Yard sales cause safety concern when drivers stop to shop.
- Possibility for accidents near schools like Lassen View and Antelope Elementary (on State Route 36).
- Driveways and activities along route can cause driver confusion, and they hesitate on making driving decisions.
- There have been “T-bone” accidents.
- Roundabout intersections can eliminate “T-bone” intersections.
- Protection needed for bus stops for children going to school.
- Safe Routes to School projects need for Vina Elementary School.
- Have to use shoulder of road to make turn into private driveway. Concern is that you will be hit from behind if you don’t get out of the way.

## ACCESS ALONG ROAD

- Improve local road connections on the route.
- Reduce impact of driveways by eliminating the future access of driveways (tie together into a single access point or frontage road). Vehicles backing out on SR 99 from businesses.

## FARM AND AGRICULTURE EQUIPMENT

- Farm equipment is slow.
- Harvesters should pay fair share on roadway maintenance.
- Orchards’ sprinklers are watering the highway
- Current sign with little tractor symbol is not enough. Inform drivers of high agricultural areas with signs stating “slow moving” or “pass with caution” and lights/flashing beacons.
- Must be careful on curves because come up rapidly on slow moving equipment.
- Need wider shoulder for farm equipment since harvesting equipment is often on shoulders.

## SPEED ZONES

- Fix road so speed can be 65 mph (improve travel times).
- Speed zone transitions are abrupt. For instance, from South Los Molinos is 65 mph|Los Molinos 35 mph in less than 2 miles|Crossland Country Store 50 mph 2 miles|55mph North of Taft.

- Lower speed limit between Los Molinos and Red Bluff (now signed 55 mph).
- Speed limit needs to be 25 mph in Los Molinos.
- North/South speeds are inconsistent.
- Lower speed limit near Jill's Market.
- Lower speed limit (both northbound/southbound directions) near Hogsback on State Route 36.

**SIGNS/FLASHING BEACONS**

- Signs may not be friendly to all users because of language barriers.
- Suggest signs on safety. For instance, accident statistics for the corridor.
- Warn drivers with a flashing beacon that they are in a high agricultural area and there is dust and farm equipment.
- Suggest blinking light/beacon when schools are in session at Antelope Elementary School and Lassen View School informing drivers "when kids are present."

**ROAD DESIGN**

- Proximity of trees, utility poles, houses, and water system make widening difficult.
- Wider shoulders needed between South Avenue and State Route 36 in Red Bluff.
- Paving and maintenance activities should take into account existing drainage systems and patterns.
- Flooding occurs regularly along the route (specifically mentioned was the East side more than the West side of the route).
- Reduce/eliminate curves whenever possible.
- Mailboxes and power poles get hit regularly on the route.

**TRAFFIC**

- There is a lot of traffic on the route.
- Accommodate traffic for fruit stands and businesses.
- Taft needs turn lane because it serves back roads and has the cemetery, heavy residential, and some businesses. It also connects to Shasta Boulevard to the North.

**ENVIRONMENTAL**

- Deer along the highway especially near the creeks.

## SYSTEM INFORMATION

- There are detour opportunities such as Foothill and Gerber, but need earlier warning of detour opportunities.

## FUTURE DESIGN FEATURES AND ALIGNMENT

- Turn pockets or acceleration/deceleration lanes for businesses and streets along SR 99. Some specifically mentioned to add were left hand turn pockets at Third Avenue, Lassen View School, Taft Street, Eldrid Avenue, and Cone Grove Road.
- Center turn lane for areas with lots of turning especially the entire community of Los Molinos or from Butler Street to Taft Street.
- Four-lane route on existing route with better signage.
- Additional lane width and shoulder width.
- Additional passing opportunities (one section mentioned was Los Molinos to Red Bluff).
- Three-lane route with alternating sets of passing lanes (example 2 miles in each direction).
- Need more clear recovery zone.
- Need additional passing opportunities.
- Add a roundabout if a new alignment for through traffic.
- New route from south of Los Molinos to I-5 (safety, speed, aesthetics, and better for the community).
- Upgrade South Avenue (existing South Avenue is not an expressway and needs to be one) to accommodate commercial trucks.
- Prefer traffic to keep on our main routes like State Route 99 and South Avenue and not smaller city/county roads.
- Upgrade local roads (for instance, Aramayo Way) to accommodate traffic.
- Do not develop a 4-lane route on existing alignment.

## MULTIMODAL

- Bus system from Los Molinos to Chico.
- Separated bicycle lanes (Class I) and pedestrian path for entire route.
- Sidewalks through Los Molinos.
- Train system for Mass Transit.

## LAND USE

- Consistent application of local agency standards on development. Past experience of mixed standards on development requirements: signals, roads, turn pockets, and driveway approaches.
- New county general plan helps retain desired rural character with larger agricultural parcel sizes in the vicinity of SR 99 and larger parcel sizes near the railroad.

## GOODS MOVEMENT

- State Route 99 should not be a commercial truck route or at least not the section from South Avenue and SR 36 in Red Bluff.
- Alternative routes for commercial trucks or develop more efficient design for capacity especially near businesses lacking turn lanes.

## OTHER ISSUES

- More enforcement needed.
- A rest area suggested along the route.
- Improve drainage on route and local streets.
- As community and the region grow, State Route 99 will get heavier use from travelers.
- Question was asked: "What do we have in mind for the route?"

http://www.redding.com/news/2009/mar/15/north-state-briefs-march-15-2010/?printer=1/

# North State Briefs: March 15, 2009

**Future of Hwy. 99 up for discussion**

LOS MOLINOS - A public workshop will be held Monday to discuss the future of Highway 99 in Tehama County.

California Department of Transportation officials will give a presentation and take comments on how people would like the highway to look in 20 years. Spanish language interpreters will be there.

The meeting will run from 6:45 to 8 p.m. in the Lassen View School cafeteria at 10818 Highway 99.

Comments also can be provided to Kathy Grah by phone at 225-3236 or by mail to Caltrans District 2, Attn: Kathy Grah, P.O. Box 496073, Redding, CA 96049-6073.

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RED BLUFF DAILY NEWS

# Drivers give input on Highway 99

By JULIE ZEEB -DN Staff Writer

Posted: 03/18/2009 07:10:42 AM PDT

LOS MOLINOS Residents from all areas of Tehama County met with Caltrans District 2 officials Monday evening at the Lassen View Elementary School to discuss the future of Highway 99.

The (Transportation Concept) plan was last written in 1991, and the existing plan is starting to be updated, said Kathy Grah, Caltrans associate transportation planner.

The vision for the future hasn't been written yet. I could sit at my desk and do this, but it would be better to get comments from those driving it.

The stretch of Highway 99 in question starts from the Butte County line.

Grah cited the differences between the needs of a person in agriculture and a student driving to school as an example of why she wanted to survey as broad a range of people as she could.

We want to understand what your needs are, but also plan for future routes, Grah said. Your input will help me, but also other people.

The 25-30 people in attendance were broken into smaller groups with a Caltrans facilitator to discuss the issue so all present could have a chance to ask questions, she said.

We don't know all the answers, but we're willing to listen and take your questions down, Grah said.

Dennis Downey, an attorney who lives in Dairyville, drives the highway daily to go to court in Redding, Red Bluff and Oroville, he said. One of his concerns was the loss of ditches that occurred the last time 99E was worked on.

(Water) runs off both sides and has a tendency to flood the sides in some of the lower lying areas, Downey said. The problem is especially bad in the area north of Bray Avenue to Le Claire Avenue.

Downey and others were also concerned about safety.

Historically, I've noticed people have a tendency to pull out on 99 and get hit, Downey said.

You see an awful lot of them. They'll be t-boned or be t-boners. Generally, people aren't paying attention.

Donna Wallan of Los Molinos has lived up and down Highway. 99 and said she's seen plenty of collisions, including the death of a 6-year-old boy.

I've seen people die in my front yard, Wallan said. There's lots of deaths. Unfortunately, people use turn lanes in Los Molinos to pass. We need more left-hand turn lanes and passing lanes.

Wallan also suggested slowing traffic down in the area of Jill's Market in Dairyville. Another hazard she mentioned was harvest dust, a problem that could be solved with a few more signs to warn people, especially those from out of the area.

It's pretty bad when they're harvesting walnuts or shaking the prunes, Wallan said. That's the area we live in. We just need to make sure people are aware they're coming into it.

Adam Hansen, an associate transportation planner for Tehama County Public Works, lives in Chico and drives to Gerber daily. He said he loves the fruit stands, which he frequently stops at, and fears that changes may take away from the rural feel.

I don't want it to be an expressway, Hansen said.

As for improvements, Hansen recommended right-turn lanes in addition to the left-turn lane already recommended.

He said more signs warning of farm equipment were needed and a few pass with caution signs should be put in.

Not all of the feedback was bad. Downey said the orchards helped keep the glare down.

When the larger group reassembled, Grah said safety and the views were mentioned by several groups.

One thing this county did that was helpful was address safety concerns, said Barbara O'Keeffe, one of the facilitators.

There is no predetermined plan. It's not cut and dried. This is just to help us update the plan.

The Transportation Concept Report will be brought to the Tehama County Transportation Commission at its April 21 meeting, 8:30 a.m. in the Tehama County Board of Supervisors chamber, 727 Oak St. in Red Bluff.

The document will eventually be posted to the District 2 Web site: www.dot.ca.gov/dist2/ .

Those who missed the meeting can still ask questions or submit comments to Grah before the plan deadline, which is June 30. Grah can be reached at 225-3236.

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Staff Writer Julie Zeeb can be reached at 527-2153, extension 115, or at jzeeb@redbluffdailynews.com

# NEWS RELEASE

**Date:** June 16, 2009
**District:** District 2 - Redding
**Contact:** Kathy Grah
**Phone:** 530-225-3236

**June 16, 2009**

**FOR IMMEDIATE RELEASE**

Presentations Scheduled for Draft State Route 99 Plan

TEHAMA COUNTY - The California Department of Transportation (Caltrans) in cooperation with the Tehama County Transportation Commission will be presenting the Draft State Route 99 Transportation Concept Report at various agency meetings. Meetings will be held:

- June 23, 2009 at 7:30 pm - Corning City Council
- June 30, 2009 at 10:00 am - Tehama County Board of Supervisors
- July 7, 2009 at 7:00 pm - Red Bluff City Council
- July 14, 2009 at 6:30 pm - Tehama City Council

The purpose of the presentations is to provide information regarding the Draft State Route 99 Transportation Concept Report. The report evaluates potential future conditions and management options for the route in Tehama County. Copies of the draft plan will be available on the Internet at http://www.dot.ca.gov/dist2/planning/concept_rpts.htm.

Caltrans welcomes any suggestions or comments the public may have on the draft report for State Route 99. Submit comments to Kathy Grah by phone at (530) 225-3236, e-mail at kathy_grah@dot.ca.gov or send to Caltrans District 2, Attention: Kathy Grah, P.O. Box 496073, Redding, CA 96049-6073. The due date for comments on the draft plan is on Friday, July 17, 2009.

*# # # #NOTE: An electronic version of this news release is available on the Internet at the following web address*: http://caltrans2.info/roadinfo.htm

RED BLUFF DAILY NEWS

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June 23 at 7:30 p.m. - Corning City Council
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July 14 at 6:30 p.m. - Tehama City Council

The report evaluates potential future conditions and management options for the route in Tehama County.

Copies of the draft plan will be available on the Internet at www.dot.ca.gov/dist2/planning/concept_rpts.htm .

Caltrans encourages public comments regarding the draft report.

Please call Kathy Grah at 225-3236, send an e-mail to kathy_grah@dot.ca.gov or send to a letter to Caltrans District 2, P.O. Box 496073, Redding, CA 96049-6073.

Comments are due by Friday, July 17.

RED BLUFF DAILY NEWS

# 20-year plan weighs Highway 99 options

**By JULIE ZEEB -DN Staff Writer**

Updated: 06/27/2009 06:41:42 AM PDT

The deadline for finalizing the draft of the State Route 99E Transportation Concept Report is drawing near with the final date for comments to be accepted set for July 17.

The report, a 20-year plan on what should be done with the highway, is being written by Kathy Grah, Caltrans associate transportation planner, in association with the Tehama County Transportation Commission.

As part of the final outreach, Grah presented the report, which includes three proposed alignment routes for Highway 99E, at Tuesday's Corning City Council meeting. Presentations will also be made to the Tehama County Board of Supervisors at 10 a.m. June 30, Red Bluff City Council at 7 p.m. July 7 and the Tehama City Council at 6:30 p.m. July 14.

"There's quite a confusion about what I do," Grah said Tuesday. "The main thing is it's the story of the highway. We're looking at what we're doing for the next 20 years."

The report will guide decision making processes and provide unity among various agencies in the highway's future, she said. It looks at various data and determines what problem areas are, what future needs might be and looks at alignment options.

A major alignment was proposed for the same 25-mile stretch running from the Butte and Tehama counties line to Interstate 5 in the 1960s. Right of way was acquired, but action was not taken and in 1978 the California Transportation Commission sold the right of way.

A number of alignments were suggested by Caltrans, local agencies and the public, but no agreement was made on which was the best option.

What the report does is analyze three of the proposed alignments while recommending a further study be completed before any action is taken, Grah said. All three plans look at eventually making Highway 99 a four-lane freeway.

**Existing route**

One option is using the existing route, which would save some money because it's an existing state highway. It would also benefit businesses in Vina, Los Molinos, Dairyville and Red Bluff and would not require action by the commission.

On the downside, the existing alignment has drainage and flood plain challenges that need improvement and it may be difficult to avoid environmentally sensitive areas.

There would also be loss of agricultural land and old growth trees and some existing bridges would need to be reconstructed. It would require a complete reconstruction of the route from South Avenue to Highway 36, which would be expensive.

**South Avenue**

The second alignment is via South Avenue, an existing roadway already being used as a connection between 99 and I-5.

There are substantial improvements in progress in the area of the South Avenue I-5 interchange and with large truck stops on the route, it would benefit trucking.

While it would potentially bring economic gain for Corning, it may also cause economic loss for Vina, Los Molinos, Dairyville and Red Bluff.

The many access points existing on the route would present a challenge in getting controlled access and rights of way would need to be acquired.

Other negatives include floodplain issues and major upgrades to the road to meet state highway standards, impacts to Woodson Park and difficulties avoiding environmentally sensitive areas.

A new four-lane bridge across the Sacramento River would be needed within the next 50 years, which would be very costly.

**New route**

The third option is to build an entirely new alignment starting in the area of South Avenue and heading northwest to intersect with I-5.

While this is the most expensive option, it would be built to today's expressway standards, saving money in the future.

It is also less costly for right of way since the majority of the land is undeveloped and controlled access would be easier with no private driveways on the road.

General plan lane use and zoning can be established to limit future development conflicts and some potential environmental impacts can be avoided by being able to chose the route.

The third option would reduce traffic impacts on Los Molinos, Vina, Dairyville, Corning and Red Bluff and allow faster travel for emergency response and evacuation.

The downfall of the option is that a location would need to be selected and right of way obtained. Funding for the project would be potentially difficult to get.

There are potential environmental impacts, loss of agricultural land and potential loss of business to Red Bluff, Corning, Los Molinos, Vina and Dairyville.

More information on the report is available and comments can be addressed to Grah at 225-3236 or kathy_grah@dot.ca.gov.

The full 150-page report, including traffic analysis and the positives and negatives of the existing route, is available online at www.dot.ca.gov/dist2/planning/concept_rpts.htm .

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Staff Writer Julie Zeeb can be reached at 527-2153, extension

# State Route 99 report presented

By Julie R. Johnson/Staff writer
2009-07-11 02:27:04

A Highway 99 transportation concept draft report has been presented to Corning, the county and other cities in Tehama County for the past month.

The report, prepared and presented by Kathy Grah, Caltrans associate transportation planner, was created in conjunction with the Tehama County Transpiration Commission, the county and area cities and communities.
Grah said the report is a conceptual document for a long-term 20-year plan to improve and define needs of the highway, and to create discussion on investing in the longevity of the section of corridor that runs through the county.

It remains to be seen whether Corning will be on the winning or losing end of that discussion, as one of the report's options is to create a new alignment from State Route 99 (commonly called Highway 99E) to the freeway that would begin just north of South Avenue and end at Interstate 5 north of Gyle Road. That option would take traffic away from South Avenue and travelers away from Corning.

"That is just one option," Grah said. "And these are just considerations not ideas."

The other two options are for the highway to remain where it currently exists –through Los Molinos then Dairyville and into Red Bluff – or for South Avenue to become the highway's alignment to the freeway. If the state were to ever take the South Avenue option or the new alignment, the section of the highway from Vina to Red Bluff would be abandoned by the state, and its maintenance would be under county jurisdiction.

"Those options are being discussed as there are indications that substantial and expensive improvements would potentially be needed to existing State Route 99 in order to accommodate traffic growth during the next 20 years," Grah said.

She emphasized the report does not attempt to identify one concept as the preferred alignment. "It seeks to establish a framework for analyzing the three alignment options and present advantages and disadvantages of the three concepts," she said.

## Alignment costs

If the state opts to change the current 99 alignment, with South Avenue becoming the highway access to the freeway, a number of issues would need to be addressed. It would require addressing existing flood plain issues; changing lane and shoulder width; upgrading bridges; reducing/eliminating private driveway and access points for safety; acquiring right of way; adding passing lanes; and eventually expanding to four lanes and a new Sacramento River Bridge crossing and more, said the report.

Staying with the existing alignment would require adding passing lanes, reconstruction, reducing/eliminating private driveways, dealing with floodplain issues, eventual expansion to four lanes and new bridges, traffic control efforts and addressing various environmental impacts, according to the report.

Opting for the new alignment to the freeway would require that the state acquire all right of way; environmental impact reports; railroad crossing; build new Sacramento River Bridge crossing; and eventual expansion to four lanes with bridge expansion, said the report.

**History**

The route's origins date back to the Native Americans when it was used as a footpath for trading, hunting, and fishing. In 1909 using $18 million in highway improvement bond act funds, the state decided to develop a highway system that ran continuous north-south through every county seat in the state, said the report.

It wasn't until 1959 that State Route 99 was added to the system in its entirety from the south end in Kern County to its north end in Red Bluff. The route is 424 miles long, 25 miles of which runs through Tehama County.

**Current, future conditions**

The highway is predominately two-lanes through Tehama County, with turn-lanes and center-lanes in areas of high cross traffic and need for access to businesses. This high traffic and cross-traffic flow creates safety issues and potential conflict between vehicles, bicyclists and pedestrians, said Grah.

In 2007 the annual average daily traffic volume for the highway was 64,300 vehicles, according to a Caltrans study. Of that volume about 15 percent used South Avenue as a connection between 99 and Interstate 5, according to the report. Grah estimates that by 2027 the annual average daily traffic volume could be 89,850 vehicles.

"There is no commonly held vision for the future of State Route 99 in Tehama County," Grah said. "A common vision for State Route 99 is essential if the state and local agencies are to adequately plan and prepare transportation improvement projects."

**WHERE TO COMMENT**

To make comment on the draft report through July 17 or to receive a State Route 99 Transportation Concept Draft Report, contact Kathy Grah at 225-3236 or grah@dot.ca.gov

The final document will be presented to the Tehama County Transportation Commission for adoption July 28

**KNOW AND GO**

What: State Route 99 Transportation Concept Report presentation

State Route 99 report presented

When: 7 p.m., Wednesday
Where: Tehama City Council Meeting, Tehama City Hall, 250 Cavalier Drive.

# GLOSSARY

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# Interstate 5
# Transportation Corridor Report

## *Glossary*

## Aa

**Access Control:** The condition where the right of owners or occupants of abutting land or other persons to access a highway is fully or partially controlled by public authority.

**Access Management:** Involves managing where vehicles enter the highway to improve highway operations and reduce incidents.

**Access Point**: Location where vehicles can enter or exit a highway.

**Air Basin:** An area or territory that contains similar meteorological and geographical conditions. In California, the Air Resources Board (ARB) has established nine air basins.

**Air Quality:** A general term used to describe various aspects of the air that plants and human populations are exposed to in their daily lives.

**Americans with Disabilities (ADA):** In 1990, the act was enacted, which prohibits discriminations against persons because of their disabilities.

**Ancestral Boundaries:** The boundaries that represent the areas that once inhabited by Indian tribes to camp, hunt, fish, gather vegetation for food consumption and basketry material, or had scared ceremonial or burial sites.

**Annual Average Daily Traffic (AADT):** Traffic volume for the year divided by 365 days.

**Attainment:** Air quality status indicates that the area has never been designated non-attainment for that particular standard.

**Audiences:** External, semi-external, and internal.

**Auxiliary Lane:** The portion of the roadway for weaving, truck climbing, speed change, or other purposes supplementary to through traffic movement.

**Average Daily Traffic (ADT):** The average number of vehicles passing a specified point during a 24-hour period. Frequently, used in relation to the "peak-month" average daily traffic.

**Average Lane Width**: The average width of a travel lane (A weighted average of all lane widths found in the segment).

**Average Shoulder Width**: The average width of all shoulder widths found in a segment. It is a weighted average of all shoulder widths found in the segment.

**Average Travel Speed (ATS):** A performance measure used to estimate level of service on a two-lane highway. The facility length divided by the average travel time of all vehicles traversing the facility, including all stopped delayed times.

## Bb

**Bicycle Status:** The ability to ride the bike on the freeway or provide an alternate facility for bicycle travel.

**Blue Star Memorial Highways:** A nationwide movement to designate highways for the nation's armed forces.

**Bridges:** Structures of more that 20 feet in length.

**Bridge Scour:** Scour is the removal of sediment (soil and rocks) from streambeds and streambanks caused by moving water.

## Cc

**California Environmental Quality Act (CEQA):** 1970 State legislation that requires that State agencies regulate activities with major consideration for environmental protection.

**California Truck Route Classifications:** "California Legal" Trucks can use the STAA Network and California Legal Routes.

**Caltrans:** California Department of Transportation.

**Capacity:** The maximum number of vehicles or persons that can pass a point on a roadway during a specified time period (usually one hour) under prevailing roadway, traffic and control conditions.

**Carbon Monoxide (CO):** A product of incomplete burning of fuel, produced by motor vehicles (the primary source), home heating, and, to a lesser extent, industrial activities.

**Changeable Message Signs (CMS):** Electronic signs that can change the message it displays. Often used on a highway to warn and redirect traffic. Also referred to as variable or electronic message signs.

**Channelization:** The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands or other suitable means to facilitate the safe and orderly movement of both vehicles and pedestrians.

**Class I Railroads:** These are railroads that have largest amount of freight and annual operating revenues of over $250 million (2006 dollars).

**Class II Railroads:** These are railroads that have a mid-size amount of freight and annual operating revenues of greater than $20.5 million, but less than $277.7 million (2006 dollars).

**Class III Railroads:** These are railroads that are usually short line railroads and annual operating expenses of less than $20 million (1991 dollars) and are usually short lines.

**Classifications:** Special designations for the freeway.

**Clean Air Act:** A 1990 environmental policy act relating to the reduction of smog and air pollution.

**Clear Recovery Zone:** An area clear of fixed objects adjacent to the roadway to provide a recovery zone for vehicles that have left the traveled way. A minimum clear recovery area of 20 feet on conventional highways and 30 feet on freeways and high speed expressways is desirable.

**Closed Circuit Television (CCTV):** This ITS technology allows a camera to display remote verification of road and weather conditions, traffic conditions, and incidents. This television can have compatibility with other communication technologies, such as, cable TV, kiosks, and the Internet.

**Commercial Airports:** Publicly owned airports that have at least 2,500 boarding passengers each calendar year and receive scheduled passenger service.

**Conformity:** Process to assess the compliance of any Federally funded or approved transportation plan, program, or project with air quality implementation plans. The conformity process is defined by the Clean Air Act.

**Content Sensitive Solutions/Design (CSS/D):** Caltrans utilizes this process to ensure that transportation projects are in harmony with communities and preserve and enhance intrinsic qualities such as historic, aesthetic, and scenic resources.

**Continuous left-turn lane:** A lane that simultaneously serves left turn vehicles traveling in opposite directions.

**Conventional Highway:** A highway without the control of access, which may or not be divided.

**Corridor:** Generally refers to a geographic area that accommodates travel or potential travel.

**County:** In the United States, a local level of government below the state.

**Cultural Resources:** Encompass archaeological traditional, and built resources including but not necessarily limited to buildings, structures, objects, districts, and sites.

# Dd

**Daily Vehicle-Miles of Travel (DVMT):** An estimate of Annual Vehicle Miles of Travel is the product of AADT X Segment Length X 365 days.

**Delay:** The time lost while traffic is impeded by some element over which the driver has no control.

**Demographics:** The statistical characteristics of human population (as age or income) used especially to identify markets.

**Density:** The number of vehicles per mile (or per lane per mile) on the traveled way at a given instant.

**Directional:** Or of indicating a direction.

**Directional Split:** During the peak period, the directional distribution of traffic.

**District:** California Department of Transportation Districts. There are 12 Districts

**District 2:** Department of Transportation, Redding office.

**Divided Highway:** A highway with separated roadbeds for traffic in opposing directions.

# Ee

**Easement:** A right to use or control the property of another for designated purposes.

**Economic Forecasts:** Decision makers must use economic data to identify trends and project into the future.

**Elevation:** A location's height above a fixed reference point, often measured from mean sea level.

**Emergency Response:** The goal is to respond to earthquakes, floods, fires, and other emergencies to restore the roadway to full service.

**Erosion:** The carrying away or displacement of solids usually by the agents of current such as, wind, water, or ice by downward movements in response to gravity or living organisms.

**Expressway:** An arterial highway with at least partial control of access, which may or not be divided or have grade separations at intersections.

# Ff

**Facility Concept:** General term used to describe the number of lanes and degree of access control on a State Route or Freeway. The term can be used to describe the existing facility or the future facility that will be required to handle projected traffic volumes within adopted level of service standards.

**Farmlands:** Rural agricultural areas.

**Fatal-Plus-Injury Collision Actual:** This information contains specific data for collisions that are State highway related. Each collision record contains a ramp, intersection or highway post-mile address that ties it to the highway database.

**Fatal-Plus-Injury Collision Average:** The Statewide Average Accident Rate (SWA) is based on a rated segment. The accident-rating factor (ARF) indicates how the existing segment compares to other segments on the State Highway System. The ARF is a comparison of then segment's accident rate to the statewide average accident rate for roads of the same type and having similar characteristics. Accident severity as well as accident frequency is considered in calculating the ARF.

**Federal Highway Administration (FHWA):** An agency of the US Department of Transportation that funds highway planning programs.

**Federally Recognized Tribes:** Those Native American Tribes recognized by the US Bureau of Indian Affairs for certain federal government purposes.

**Floodplain**: This is a flat or nearly flat terrain adjacent to a stream or river that experiences occasional or periodic flooding.

**Free-Flow Speed:** The average speed of vehicles on a given facility, measured under low-volume conditions, when drivers tend to drive at their desired speed and are not constrained by delay from traffic control devices.

**Freeway and Express System (F & E):** The Statewide system of highways declared by the Legislature to be essential to the future development of California. The F&E System has been constructed with a large investment of funds for the ability of control access, in order to ensure the safety and operational integrity of the highways.

**Functional Classification:** Guided by Federal legislation, refers to a process by which streets and highways are grouped into classes or systems, according to the character of the service that is provided, i.e., Principal Arterials, Minor Arterials and Major Collectors.

# Gg

**Gateway:** A location where traffic was collected for the O & D study.

**General Aviation**: This term refers to all flights other than military and scheduled airline flights, both private and commercial.

**General Commercial:** The land use definition applies to a diversity of retail sales and services, office, and auto-oriented uses.

**General Issues:** Description of segment concerns.

**General Plans:** A policy plan of acceptable land uses in each jurisdiction. Each city and county adopts and updates their General Plan to guide the growth and land development of their community for both the current and long term.

**Goods Movement:** The general term referring to the goods or produce transported by ship, plane, train, or truck.

**Grade:** As used in capacity analysis, grade refers to the average change in elevation on the segment under study, expressed as a percentage.

# Hh

**High Emphasis Routes:** Routes that are characterized as being the most critical Interregional Road System (IRRS) routes. More importantly, these routes are critical to interregional travel and the state as a whole.

**Highway:** Term applies to roads, streets, and parkways, and also includes right of way, bridges, railroad crossings, tunnels, drainage structures, signs, guard rails, and protective structures in connection with highways.

**Highway Advisory Radio (HAR):** An ITS technology that provides valuable information to travelers through prerecorded messages that contain traffic information, road conditions, chain requirements and road closures. Transmission is generally accomplished through low-powered AM broadcast.

**Highway Capacity Manual (HCM):** Updated in 2000 by the Transportation Research Board of the National Research Council, the HCM presents various methodologies for analyzing the operation defined as Level of Service of transportation systems.

**Highway Capacity Software (HCS+):** Implementing software tool designed to replicate procedures in the HCM.

**Highway Classification:** For purposes of capacity analysis, separation of two-lane highways into Class I or Class II. Class I includes major interregional routes. Class II includes smaller links in the system,

**Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 (Proposition 1B):** As approved by the voters in the November 2006 general elections, Proposition 1B enacts the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 to authorize $19.925 billion of state general obligation bonds for specified purposes.

# Ii

**Incident:** Any occurrence on a roadway that impedes the normal flow of traffic.

**Intelligent Transportation Systems (ITS):**. Use of transportation technology that enhances the safety and efficiency of vehicles and roadway systems.

**Initial Site Assessment (ISA):** These assessments are conducted to discover potential sources of hazardous wastes and potentially contaminated areas within and adjacent to existing and proposed Caltrans rights of way.

**Interchange:** A system of interconnecting roadways in conjunction with one or more grade separations providing for the interchange of traffic between two or more roadways on different levels.

**Intermodal:** The ability to connect, and make connections between modes of transportation.

**Interregional Road System (IRRS):** A series of interregional state highway routes, outside the urbanized areas, that provides access to, and links between, the State's economic centers, major recreational areas, and urban and rural regions.

**Interregional Transportation Strategic Plan (ITSP):** The ITSP identifies six key objectives for implementing the Interregional Improvement Program and strategies and actions to focus improvements and investments. This document also addresses development of the interregional road system and intercity rail in California, and defines a strategy that extends beyond the 1998 State Transportation Improvement Program (STIP).

**Interstate 5 (I-5):** The main Interstate highway on the West Coast of the United States paralleling the Pacific Ocean.

**Intersection:** The general area where two or more roadways join or cross and include roadside facilities for traffic movements in that area.

# Jj

# Kk

**K factor:** The two-way peak hour percent of AADT.

# Ll

**Left turn lane.** A storage area designated to only accommodate left turn vehicles.

**Land Use:** The human modification of natural environment or wilderness into built environment such as fields, pastures, and settlements.

**Lane Width:** The width of the travel way expressed in feet.

**Level-of-Service (LOS):** A rating using qualitative measures that characterize operational conditions within a traffic stream.

**LOS AADT:** Term used to describe the quality of traffic flow during the peak hour on a typical day on the facility.

**Level terrain:** A combination of horizontal and vertical alignments that permits heavy vehicles to maintain approximately the same speed as passenger cars; this generally includes short grades of no more than 1 to 2 percent.

**Local Street or Local Road:** A street or road primarily for access to residences, businesses, or other abutting property.

**Local Transportation Commission (LTC):** A designated transportation planning agency for a county which is not within the jurisdiction of a statutorily created Regional Transportation Planning Agency or a Council of Governments. Along this route, Siskiyou and Tehama Counties have these commissions.

**Location:** Limits for the segment.

# Mm

**Maintained Miles:** The length of a facility that has been preserved and kept in usable condition.

**Maintenance Stations:** Facilities used by Caltrans to maintain the highway year round.

**Median:** The portion of a divided highway separating the traveled ways for traffic in opposite directions.

**Median Type**: The type of divider present in the roadway.

**Mobility Improvement:** The goal is to reduce congestion and restore productivity on the State Highway System.

**Multimodal:** The availability of transportation options using different modes within a system or corridor.

**Multilane highway:** A highway with at least two for the exclusive use of traffic in each direction, with no partial or control of access, but they may have periodic interruptions to flow at signalized intersections no closer than 2 miles apart.

# Nn

**National Ambient Air Quality Standards (NAAQS):** Standards established by the US EPA that apply for outdoor air throughout the country.

**National Highway System (NHS):** ISTEA established a 155,000-mile NHS to provide an interconnected system of principle arterial routes to serve major travel destinations and population centers, international border crossings, as well as ports, airports, public transportation facilities and other intermodal transportation facilities. The NHS must also meet national defense requirements and serve interstate and interregional travel.

**National Network (NN) for Trucks:** This truck network is comprised of the National System of Interstate and Defense Highways, examples are I-10, I-5, and I-80. The NN, Terminal Access, and Service Access routes together make up the "STAA Network."

**Nitrogen Dioxide ($NO_2$):** It is one of the several nitrogen oxides that are products of high-compression internal combustion engines, power plants, and other large burners.

**Non-attainment:** Areas with air quality levels that exceed the standard for specific pollutants.

**Non-Federally Recognized:** Those Native American Tribes not recognized by the US Bureau of Indian Affairs for certain federal government purposes.

**Nonmotorized Transportation:** Transportation that includes bicycle and pedestrian travel to permit the transport of people.

**Northbound (NB):** Moving towards the north.

# Oo

**Origin and Destination Study (O & D Study):** A study used often to understand travel patterns in an area.

**Ozone:** A form of oxygen that consists of three atoms of oxygen. It is an important ozone greenhouse gas.

# Pp

**Parallel or Connecting Routes:** A local road auxiliary adjacent to an arterial highway for service to abutting property and adjacent areas and for control of access.

**Paratransit:** An alternative mode of flexible passenger transportation that provides curb to curb service and does not follow fixed routes or schedules Typically, mini-vans or cutaways are used to provide this service and often the service is for individuals with disabilities who are unable to use fixed route transportation systems.

**Particulate Matter ($PM_{10}$):** Mostly carbon particles much like soot; however, fine particles of dust, metals, asbestos, and suspended droplets are also found. This matter is produced by industry, motor vehicles, and natural processes. Fugitive dust comes from such sources as agricultural tilling, construction, mining and quarrying, paved and unpaved roads, and wind erosion.

**Passing Lane:** A lane added to improve passing opportunities in one direction of travel on a two-lane highway.

**Peak Hour:** The period during which the maximum amount of travel occurs. It may be specified as the morning (a.m.) or afternoon or evening (p.m.) peak.

**Peak Hour Factor:** The hourly volume during the maximum-volume hour of the day divided by the peak 15-minute flow rate within the peak hour; a measure of traffic demand fluctuation within the peak hour.

**Peak Month:** The average daily traffic for the month of the heaviest flow.

**Posted Speed:** A road speed limit is the maximum speed as allowed by law for road vehicles.

**Postmile (PM):** The mileage measured from the southern county line or from a beginning or a route. Each postmile along the route in a county is a unique location in the California State Highway System.

**Present Facility:** Defines the current built facility.

**Project Initiation Documents (PIDs):** Documents that identify in detail the cost, scope, and schedule of a project and provide the basic information necessary for better understanding the nature of the project. A PID must be completed for any project to be programmed.

**Public Transportation:** Transportation service to the public on a regular basis using vehicles that transport more than one person for compensation, usually but not exclusively over a set route or routes from one fixed point or another. Routes and schedules may be determined through a cooperative arrangement.

# Qq

# Rr

**Rail Freight:** The transport of goods along railroads.

**Region**: A broad geographic area distinguished by similar features.

**Regional Transportation Plan (RTP):** RTPs are mandated planning documents developed by MPOs and RTPAs in cooperation with Caltrans and other stakeholders. The purpose of the RTP is to establish regional goals, identify present and future needs, deficiencies, and constraints, analyze potential solutions, estimate available funding, and propose investments.

**Rehabilitation:** Activities that preserve the quality and structural integrity of a roadway by supplementing normal maintenance activities.

**Resolution:** A written motion adopted usually after voting by a formal organization, a legislature, a club, or other group.

**Right of Way:** Real estate acquired for transportation purposes, which includes the facility itself (highway, shoulders, and fixed guideway), as well as associated uses (maintenance structures, drainage systems, and roadside landscaping).

**Roadside:** A general term denoting the area adjoining the outer edge of the roadbed. Areas between the roadbeds of a divided highway may also be considered roadside.

**Roadway:** That portion of the route including the appertaining structures, and all slopes, ditches, channels, waterways, and other features necessary for proper drainage and protection.

**Roundabouts:** A road junction at which traffic streams circularly around a central island. Roundabouts are defined by two basic operational and design principles: yield at entry and deflection for entering traffic. At a roundabout, entering traffic must yield to circulating traffic even when both arrive at the same time. Deflection is used to eliminate high-speed tangential entries and direct traffic to correct circulating around the central island.

**Route:** SR 99.

**Rural:** An area with widely scattered development and a low density of housing and employment.

# Ss

**Section 4(f):** This act stipulated that the FHWA and other DOT agencies cannot approve the use of land from a significant publicly owned public park, recreation area, wildlife or waterfowl refuge, or any significant historic site unless there is no feasible and prudent alternative use of land and the action includes all possible planning to minimize harm to the property resulting from use.

**Segment:** A portion of highway identified for analysis that is homogenous in nature.

**Segment #:** A specific number for each segment.

**Segment Description:** Provides the starting and ending locations for a segment. Usually a segment breaks at a county line, interchange, structure, or change in number of travel lanes.

**Shoulder:** The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

**Signalized Intersection:** A place where two roadways cross and have a signal controlling traffic movements.

**Sign HAR:** Signed at the location where the Highway Advisory Radio is broadcasting.

**Socio-economics:** The study of the relationship between economic activity and social life.

**Southbound (SB):** Moving towards the south.

**Stakeholders:** In transportation, stakeholders include FHWA, CTC, RTPAs and Transportation Commissions, transportation departments, cities and counties, Tribal Governments, economic development, business interests, resource agencies, transportation interest groups, the public, and the Legislature.

**State Highway Operation and Protection Program (SHOPP):** A four-year program limited to projects related to state highway safety and rehabilitation.

**State Highway System (SHS):** The intent of this state legislation was to identify a set of routes in the state that serve the heavily traveled rural and urban corridors, connect the communities and regions, and support the economy by connecting centers of commerce, industry, agriculture, mineral wealth, and recreation.

**State Route:** State highways within the State, other than Interstate and US routes, which serve intrastate and interstate travel. These highways can be freeways, expressways or conventional highways.

**State Transportation Improvement Program (STIP):** Biennial document, adopted by the California Transportation Commission (CTC), which provides the schedule of projects for develop over the upcoming five years.

**Surface Transportation Assistance Act Network (STAA):** The National Network (NN), Terminal Access (TA) and Service Access Route make up this network. These routes allow STAA trucks.

**Surface Transportation Assistance Act (STAA) Trucks:** This act required states to allow larger trucks on the National Network (NN) which is comprised of the Interstate State plus the non-Interstate System Federal-aid Primary System. “Larger trucks” includes (1) doubles with 28.5-foot trailers, (2) singles with 48-foot semi-trailers and unlimited kingpin-to-rear axle (KRPA) distance, (3) unlimited length for both vehicle combinations, and (3) width up to 102 inches.

# Tt

**Terminal Access (TA) Routes:** TA routes are portions of State routes and local roads that can accommodate STAA trucks. TA routes allow STAA trucks to (1) travel between NN routes, (2) reach a truck's operating facility, or (3) reach a facility where freight originates, terminates, or is handled in the transportation process.

**Terrain:** The surface features of an area of land; topography. In capacity analysis, classification falls into one of three categories: flat, rolling, or mountainous. The terms "terrain" and "grade" are not interchangeable (see "Grade").

> **Level:** The land surrounding the highway is level or nearly level. The most typical example of level terrain is a valley.
>
> **Rolling:** Land in the vicinity of the highway is composed of low hills, dips and rolls, or other types of undulations. Rolling terrain is found in many locations, including the foothills surrounding the Central Valley of California.
>
> **Mountainous:** Terrain with extensive, steep slopes (often in excess of 6 percent) that may rise sharply on one side of the highway while dropping away rapidly on the other.

**Three C Process (3C):** "Continuing, cooperative and comprehensive" planning process. This process is required of metropolitan planning organizations (MPOs) as a condition for receiving federal capital or operation assistance.

**Traffic Count Stations:** These are some types of traffic count stations on SR 99:

> **Control stations:** Counted in one-hour intervals by direction.
>
> **Classification counts:** Generally collected at control station sites or at locations or significant truck traffic.

**Traffic Noise:** The level of highway traffic noise depends on three things: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of the traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater numbers of trucks.

**Traffic Projections:** Estimates of future traffic growth.

**Traffic Accident Surveillance and Analysis System (TASAS):** A system that provides a detailed list and/or summary of accidents that have occurred on highways, ramps, or intersections in the State Highway System, Accidents can be selected by location, highway characteristics, accidents data codes or any combinations of these.

**Traffic Conditions:** Any characteristics of the traffic stream that may affect capacity or operation, including the percentage composition of the traffic stream by vehicle type and driver characteristics (such as the differences between weekday commutes and recreational drivers).

**Traffic Signal:** A traffic control device regulating the flow of traffic with green, yellow and red phases.

**Transit:** Generally refers to passenger service provided to the general public along established routes with fixed or variable schedules at published fares. Relate terms include: public transit, mass transit, public transportation, urban transit, and paratransit.

**Transportation Concept Report (TCR):** Planning document that identifies current operating conditions, future deficiencies, route concept, concept level of service (LOS) and conceptual improvements for a route or corridor.

**Transportation Enhancement:** A competitive grant funded program to fund environmental and alternative transportation projects that enhance the system.

**Transportation Permits:** The California Department of Transportation has the discretionary authority to issue special permits for the movement of vehicles/loads exceeding statutory limitations on the size, weight and loading of vehicles contained on Division 15 of the California Vehicle Code. Requests for such special permits requires the completion of an application for a Transportation Permit from the office Traffic Operations-Transportation Permits. Route Classes for length are labeled yellow, green, blue, brown and red. Route Classes for weight are labeled purple, orange and green. For more information see the website link at: http://www.dot.ca.gov/hq/traffops/permits/ .

**Traveler Information Systems:** Another name for Intelligent Transportation Systems (ITS).

# Uu

**United States (US) Route:** A network of highways of statewide and national importance. These highways can be freeways, expressways or conventional highways.

**Unsignalized intersections:** An intersection not controlled by traffic signals.

**Urban:** An area typified by high densities of development or concentrations of population, drawing people from several areas of the region.

# Vv

**Volume:** The number of vehicles passing a given point during a specified period of time.

**Volume to Capacity Ratio (V/C Ratio):** The ratio of flow rate to capacity for a transportation facility.

# Ww

**Water Quality:** The physical, chemical, and biological characteristics of water in relationship to a set of standards.

# Xx

# Yy

# Z

# REFERENCES AND CONTACTS

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# State Route 99
# Transportation Concept Report

## *References and Contacts*

## References

This section provides the reference materials used to create the SR 99 TCR. **APPENDIX A: Other Plans, Policies, and Studies** lists additional references used to prepare the report.


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